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AGRICULTURAL.

The Cabbage Worm.

We are accustomed to speak of the cabbage worm as if there were but one species, while, in fact, the entomologists claim to know more than twenty different species, many of which also feed upon other plants. While nearly all seem to prefer those plants of the brassica family, as cabbage, cauliflower, kale, turnips and mustard, they also invade the flower garden to feed upon mignonette, alyssum and nasturtium. One species eats the tomato leaves, dandelions, celery, clover and dock. Another includes nearly all of these, and also spinach, parsley, lettuce, saffron and asparagus, as well as many weeds.

They are very much alike to the casual observer, as the moths are white or gray, and the larva, which do the eating, are mostly green, some having small white, yellow or black lines, in most cases running lengthwise, but in one species around the body. Three or four of them are to be found only in the Southern States, while others extend from Ontario to the Gulf of Mexico.

In speaking of them we shall include all, as it is upon the cabbage that they do the most damage, and if they feed upon other plants, they seldom work much harm to them. But the loss when they attack a cabbage field in full force is often very great. Often in Southern fields, where they seem to be most prolific, acres of cabbages have been totally destroyed or rendered unfit for market by the presence of the worms, the holes they have eaten and the filth they have left behind them.

Of all the species that known as the rape butterfly or the imported cabbage worm is said to be the most destructive. It first appeared in this country near Quebec, somewhere from 1870 to 1875, and by 1880 had spread nearly all over the United States and Canada, and as it has several broods a year, and the eggs hatch in from seven to nine days, and the larva attains full size in about two weeks more, they increase very rapidly, and if it were not for certain enemies of parasitic insects they could not be kept in subjection at all.

Some species of birds also catch the butterflies and eat the larva, though none seem to be very fond of them that we have been able to discover. Our native species seldom have more than two broods a year, at least in the Northern States, usually in June and August or September, but these are sufficient. As the larva has a feeding period of about a month, and as they do not all hatch at once, it nearly covers the whole period of growth on both early and late cabbages.

Many experiments have been tried for destroying them, the use of Paris green, London purple or other preparations of arsenic being the most effective, but thought dangerous, as the arsenic may work down into the head, making what should be a wholesome vegetable unsafe to use. The use of Pyrethrum or the Persian insect powder is entirely safe, whether applied dry or mixed in cold water, mixed at the rate of one ounce to a gallon of water, and applied either by spraying or by sprinkling from a watering can with fine rose nozzle. When used dry it seems to be as effective when mixed at the rate of one pound of powder in ten pounds of flour as when used pure. The difficulties with pyrethrum are, first, the chance that the powder is adulterated or is so old as to have lost some of its strength; next, the difficulty of reaching the under side of the leaf, where they are most frequently found, making it almost a necessity to have either the spraying pump or the bellows fitted with a bent nozzle, in order to work under the plant as well as above it. Some of the larger or older larva are not so easily killed by it as the younger ones.

The use of hot water at a temperature of 120° effectively kills all the larva it touches. While boiling water is at 212°, turning it into a can and taking to the garden, and using it through a sprinkling nozzle, does not often leave it too warm. Even if a few leaves are scalded at first, the cabbage will grow on growing the head from the centre. This method is better adapted to the kitchen garden than to large fields, and those who grow thousands, or even hundreds of thousands, of plants would find it impracticable. Some years ago one grower reported that he set 100,000 plants, and not a head was fit for market.

While oil soap, one pound dissolved in six gallons of water, has been found to kill them when applied liberally, but like the other sprays it needs the bent nozzle to reach the under side of the leaf, and it needs to be used several times, at least three times each season. Lime, salt, pepper and other strong or strong-smelling ingredients do not seem to have any effect, either in

killing the worms or driving away the butterflies, though sprinkling the plant with a strong salt brine drives them away, and may kill a few.

One man reported that he kept the butterflies away by spreading a white net with two-thirds of an inch mesh about a foot above the plants. This might seem too expensive for a large field, though in these days of acres covered with cotton cloth to grow tobacco under, and tents to spread over orange trees to protect them from frost, it does not seem so unreasonable as it might have seemed years ago.

We have left what we think is the best method of destroying them until the last. Spraying with kerosene emulsion, working both above and below the plant, seems to kill the insects and the eggs. Its odor passes off so quickly that it does not injure the cabbage for table use, or it will all wash off in a rain. By its use the cabbage crop can be saved, and we shall not be obliged to import cabbages from Europe, as we were obliged to do when the trouble with the worms was the worst. It costs less and is more easily applied than any other of the remedies that have been tried, and probably the kerosene and water treatment would be equally effective if one had a pump that was made to mix these in their proper proportions. There are now many such pumps made, and they are very useful, especially for plant lice and many other insects.

Dairy Notes.

We have before called attention to the amount of food that the eight-year-old Jersey cow, Signal's Lily Flagg, was able to eat and digest while she was making her record, then, if not now, the championship record, of 10,954 pounds of milk, from which was made 1047 pounds of ounces of butter, between June 1, 1901, and June 1, 1902. As two years have passed since then, and many are now reading agricultural papers who did not read them then, and many who did read may have forgotten them, we will venture to repeat them. There were those then who were not prepared to believe such a record could have been exactly kept, who may do so now, because there are others that have nearly approached it, while cows that can produce 350 to 400 pounds a year are not so rare, even upon what is called ordinary good feeding, as to arouse much astonishment in any good dairy section.

The weight of this cow was about 850 pounds and in June, 1901, she was eating a daily ration of eight quarts of corn meal, twelve quarts of wheat bran, fourteen quarts ground oats, three quarts of oil meal and a peck of ensilage beside what she could pick up in a rather poor pasture.

The next December she dropped a calf, and in that month she only produced 8 pounds 2½ ounces of butter. The June ration was increased to 16 quarts each of corn meal and ground oats, 8 quarts wheat bran, 6 quarts of oil meal and 15 pounds of clover hay, nearly 90 pounds of grain per day, to 15 pounds of clover. Before the calf was dropped, this was reduced to 10 quarts of wheat bran, but increased again after the calf was a few weeks old, and her best record for a week was 27½ pounds 12½ ounces of butter in May, 1902. Her best day's record was 4 pounds 10½ ounces of butter.

We have said that she ate and digested that enormous amount of grain. For this we have the evidence of her owner that she was in good health during the test, and the evidence of a disinterested party, a well-known Canadian breeder, who had charge and supervised the test while she was making her best record. This was her third year of high feeding, and she had the amount of grain gradually increased each year. Her food cost a little over \$238 a year, and the butter and buttermilk was valued at \$466, which, with the value of the calf, would show a handsome profit.

Those who think it will not pay to feed grain to cows in pasture should remember that this feed was given to a cow in pasture, and while no cow could eat that amount without a previous long preparation of gradually increasing the feed, we think a great many cows could be safely given much more than they get, and would well repay its cost. This cow was fed but twice a day, and milked twice a day, and while the amount of milk she gave in the year has been many times exceeded by larger cows, it seldom has been by cows of her weight, and few come as near making a pound of butter from a little over ten pounds, or five quarts of milk, for a year's record.

The daily carding and brushing of the milk cows affects the odor of the milk in other ways than by removing the dirt or dust from their hair and lessening its chance of falling into the milk pail with its attendant microbes. It helps to keep the pores of the skin open, and allows the insensible perspiration to pass off, instead of being forced back into the system. This brushing and cleansing of the hair is what bathing is to the human beings, and we scarcely realize how much of impure matter and filth passes off through the pores until it is forcibly brought to our notice by the neglect of some one to attend to it. Often what is called the cow odor is simply the odor that should have passed off in the secretions, the perspiration as well as the others, and these have been carried away by ventilation, both in the stable and while out of doors. We have often noticed the very strong odor from both cows and oxen which were not regularly brushed, when they had been out in a soaking rain, even before we knew of suspected the cause of it, yet now we feel sure that it was from the opening of pores that had been long partially closed by lack of brushing them often.

The Gentlemen's Driving Club of Boston held an excellent matinee at Readville on Wednesday of last week.

What a Farmer Must Be and Do.
C. E. Chapman gives in the New York Tribune Farmer a brief history of a holiday on Horseshoe Farm:

One day's work on Horseshoe Farm by the proprietor is written out to show that the day has gone by when "any fool can farm." I believe the idea some papers are holding out that poor city people would be better off if they would move into the country is wrong. Even people of experience have to work hard and understand many things well to succeed in providing for all and saving \$100 a year.

I cannot conceive how it is possible for any one to accomplish more, work more hours or spend less than the farmers of this section do, and lacking knowledge of methods, how could city people succeed? It is Memorial Day, and the hired help, claiming a legal holiday, have gone for recreation, so the family must "stay by the stuff." The farmer must be the caretaker.

you?" "Yes," was the answer. In many cases Memorial Day has become a very different thing from the original intention. The welfare of those associated with us may not be accounted "farming," but it is sometimes almost a necessity to keep them in working order. A farmer must be a leader of men.

I fixed the grain drill for sowing corn, put in the seed and phosphate, and hurried to the field, hoping to get it done before the threatened storm. It is a new drill and liable to sow too deep, so I set the teeth back. The phosphate is very dry, so I set the drill for half the amount desired. The corn has extra large kernels, so I set for sixteen quarts an acre. The corn is intended for silo, so I set every fourth tooth twenty-eight inches between rows—and with rows and seed enough to allow the use of barrow and weeder. After the team had been around twice and got their "second wind," and I am sure the drill is working right, I push along and finish the three

along" when they work. I plowed two-thirds of an acre. I wash off the team's shoulders, feed the swine, give the calves grain, and the horses are cared for before supper, at 6.40 P. M.

After supper I turn the six hundred eggs, look at all the lamps, shut up the chicks, and it is 7.30 P. M. I take my hoe and go to the field garden. There I prepare a bed six by twenty feet, and sow a sample of very fine cream-colored oats sent to me by mail. This may not amount to anything thus late, but it is just a little recreation; just keeping up interest in new things.

Coming back by the black raspberries, I hoe three hills, so the boys can see how I want them done, and I will not have to come with them when they begin on them. A farmer must study, experiment and furnish brains for the farm helpers all the time.

A little detour takes me across the sugar beets, and I discover we must run the weeder across the rows at once, or it will be too late. They are just coming up and are getting weedy. A few days later and all the weeder will do is to cover them up. I arrive at the house at 8.30 P. M., sit down at my desk and write out these notes, because C. M. De Puy says: "Old men should keep active or they will die." Sleep is a great restorer, and I need some of it. 9.30.

Can Crows Count?

Careful experiments conducted for many years have proved that three women will scare a Maine crow as much as seven men. The man who proved this fact to the satisfaction of his neighbors and the world was Captain John Odum, who was keeper of Fort Point light under the Buchanan administration.

As it was impossible for a man to live and support a family on a salary of \$540 a year, the captain planted a wide area of corn back from the lighthouse. As soon as the blades were above ground the crows laid claim to the lot. So Captain Odum built a brush camp in the middle of his field, and for a long time studied the ways of crows, hoping thereby to help himself and other men who were afflicted by crows.

The first morning at daylight two men went to the camp. After half an hour one of them came away. The crows had watched the going and coming, and though they could not see the man in the brush camp they knew he was there. So long as he remained not a bird alighted near the corn. On the following morning three men entered the camp, two coming out and going about their work after a reasonable wait. Again the crows performed an operation in simple subtraction, taking two from three, and shunned the corn lot.

In this way the captain kept on increasing his men from day to day until eight men went to camp one morning and seven departed later on. No sooner had they quit than every crow in sight was among his corn rows pulling the grain and giving the man on watch a chance to shoot three of them.

Having demonstrated that a crow could count as far as seven, but was incapable of comprehending the meaning of eight, Captain Odum tested their abilities upon women. In a similar manner he learned that three women could be compressed within the compass of a crow's brain, but the fourth was unaccountable. Since then scores of experiments along these lines have been made and the results have never varied a unit.

For nearly half a century Captain Odum's discovery has been known, but until John Hughes of this village began to construct scarecrows in female garments last week, nobody has been sensible enough to take advantage of a scientific fact. Mr. Hughes is a practical farmer who hopes to die rich if he lives long enough. The life of an average scarecrow in a Maine cornfield is three years, though a few survive for four or five years if they are housed as soon as the corn is too big for the crows to pull.

In looking over his stock late in May Mr. Hughes learned that in order to protect his fields properly he must secure the services of six able-bodied scarecrows, of which number he had only two on hand. The price of hemlock overall stuff, of which scarecrow garments are made, has advanced forty per cent, within a year, and when Mr. Hughes contemplated the purchasing of four full suits of clothing at one time he felt a if the outlay would make a big hole in his prospective profits from growing corn. Then he remembered the original investigations into the subject made by Captain Odum, and made up his mind to take the risk.

Unbleached cotton cloth is still cheap at the country stores. Of course, no man of sense would consent to have a member of his own family go out to the open fields by the highway and expose herself in no warmer garments than cotton sheeting. The June mornings are cool, and the fabric is not of a kind that a woman of good taste would select. But money was not plentiful, and so long as he could scare the crow away as cheaply as possible, Mr. Hughes was willing to risk the scandal which would be created by strangers mistaking his female scarecrows for members of his household.

By the middle of June he had fixed up two very Amazonian females and placed them on guard. After that a heavy rain compelled him to spend a week in his meadows ditching lowlands. By the time he was at leisure to visit his cornfield he was afraid the crows had discovered how badly his crop was protected, and had lifted most of the spears which were above ground. His surprise and joy were unbounded when, on visiting the place, he found that the crop was untouched. Not only had two female scarecrows performed the duties of six males, but they had labored so well that when the crows were compelled to cross his farm they made a wide detour, even when

they were flying so high as to be above gunshot. Having assured himself that everything was safe, Mr. Hughes rushed to the house and told his wife that he had discovered a new occupation for the new woman. When she asked him to explain he shouted: "Scarecrows!"—Maine Cor. N. Y. Sun.

Notes from Washington, D. C.

George William Hill, the chief of the Division of Publications of the Department of Agriculture, now that Congress has adjourned and thereby lessened the burden of the public printer, hopes to have the Year Book for 1901 completed within a week or two. A few copies have already been received by the Secretary of Agriculture, but the quota of the department has not been delivered. They will not, however, be for general distribution to the farmers, who must make application to their respective representatives or senators in Congress.

A study of the thirty-three different articles in the forthcoming Year Book convinces the reader of the realization of the contributors that the farmers desire plain articles, absent from scientific terms and easily understood. William A. Taylor, the pomologist of the department in charge of field investigations, has written an article, entitled "Little-Known Fruit Varieties Considered Worthy of Wider Dissemination."

He states that there are many advertisements of new varieties of fruit trees appearing in farming publications, but he cautions the orchardist in general against planting comparatively untried sorts. He should proceed in an experimental way, investigating as thoroughly as possible the requirements and characteristics of any sort unknown in his particular locality before planting it on a commercial scale. A few of the little-known fruit varieties, selected from a large number introduced in recent years, are described and illustrated in Mr. Taylor's paper, with a view to furnishing detailed information to growers who desire to undertake a trial of sorts that have demonstrated their usefulness and value to an extent that warrants their wide dissemination and testing in climatic regions similar to those in which they have already been grown.

Among these varieties are the Ingram apple, which has long been grown in certain localities in Missouri, and neighboring States. The McIntosh apple, a winter apple of Northern origin, shows a wide adaptability to diverse conditions, and gives large promise of success in representative apple-growing regions.

The Carman peach, Mr. Taylor states, is perhaps one of the finest varieties of cling peaches, and its freedom from rot in early stages makes it a very desirable addition to the orchard.

Among the more newly introduced Japanese plums that have been sufficiently tested to determine their commercial value in diverse locations, perhaps none, says Mr. Taylor, have attained to the rank occupied by the Red June plum. It is a strongly marked variety, ripening well in advance of Abundance, and standing the rough handling of commercial transportation. Though not of highest quality in a fresh state, it cooks well and forms an excellent substitute for the Damsun when canned or preserved.

The Wickson plum is another product of the study of Luther Burbank, and which Mr. Taylor believes could be grown to advantage.

The Downing grape he classes as a native grape which is noted for its keeping quality, a fact which cannot be said of many of our native grapes.

Appropos of the wide-spread discussion which has been going on in this country of the high price of beef, the report of our Consul, W. Stanley Hollis, at Lourenco Marquez, South Africa, is interesting: "At present," (Jan. 19) he writes, "the average price of fresh beef is thirty cents a pound, while pork and mutton are quoted at about sixty cents. No dressed poultry is sold here; the housekeeper must buy live fowls and have them prepared at home."

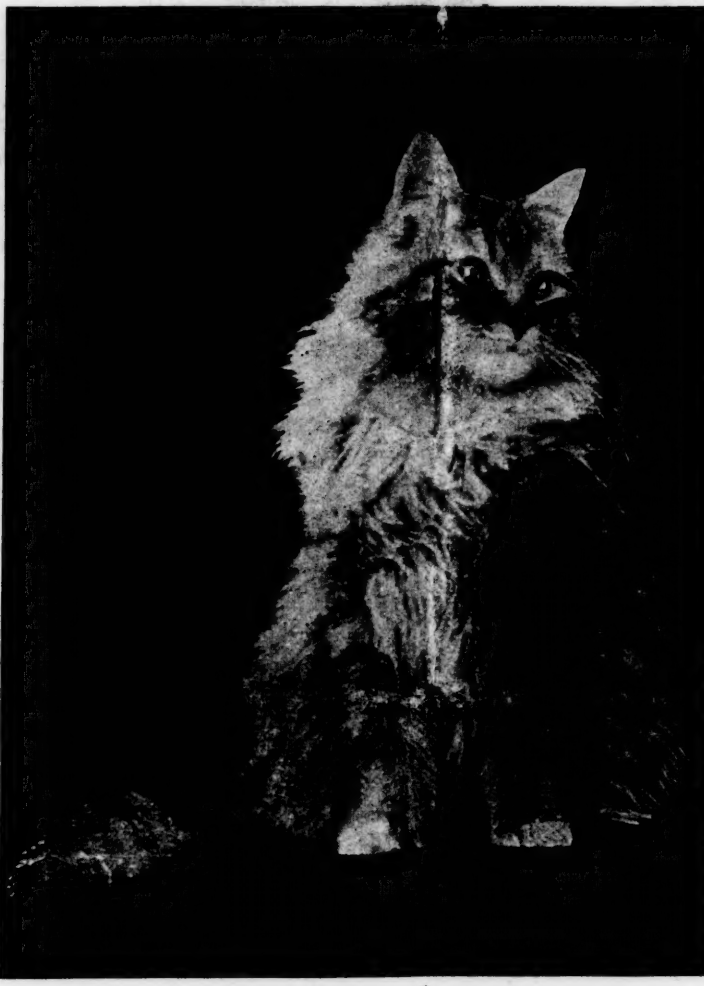
"The greatest amount of beef is obtained from the trek oxen, old worn-out animals that have traveled many weary miles over the rough South African roads. Unfit for further draft purposes, they find their reward for faithful services in the slaughter pen."

"The local butchers send the animals to the slaughter-house every night, and early in the morning the animals are killed by being stabbed in the back of the neck. After inspection the carcasses are immediately cut up, and by 5 A. M. the various parts are hanging in the local butcher shops ready for sale. By noonday the butchers are sold out, their shops are closed, and in less than twenty-four hours from the time the animal is slaughtered the entire carcass is consumed. None of the local butchers use ice, as it is very expensive, costing from five to six cents a pound."

"The equipment of a Lourenco Marquez butcher shop," states Consul Hollis, "would amaze an American butcher. Everything is crude and antiquated. There are no refrigerators, and marble slabs and plate-glass windows are comparatively unknown. Instead of clean paper, old newspapers are used for wrapping purposes."

The importance of the work of the Division of Entomology of the Department of Agriculture is evidenced by the fact that an estimate is made by the four leading entomologists of the country, that the annual loss to crops in the United States from insect ravages amounts to more than \$300,000,000. If remedies can be found for the elimination of but one per cent. of this loss, the saving would amount to pay for the cost of running the entire Department of Agriculture for a year.

GUY E. MITCHELL.



A THOROUGHBRED KING ROYAL ANGORA.
At the age of four months.

At 5 A. M. I rise and visit the incubators. After the all-night neglect they are the first thing to see to. I find one at 104°, and the regulator rising but little. This is too high. Lamp burning at the usual height. What makes it too high? I do not see why. Maps thinks 104° all right on a cold day and too much on a warm day. One hundred and four degrees is 104° either day. Oh, I see why it is too high; it is the sixteenth day, and the animal heat from the chickens begins to make itself felt. So I will give the regulator a turn. Regulators on incubators are more useful as indications of something wrong than for righting things.

A visit to the brooders follows, and the chicks in one lot look mussy and soiled. Those chickens were not warm enough last night and crowded each other; then the bunch sweat and cooked. A few nights of such work and they will have bowed loins and all untimely graves. The five brooders, four hundred chicks in all, are looked over and conditions noted. The farmer must have searching eyes. I turn down the lamps to save oil, but do not turn loose the chicks, for it is cold and damp this early.

Then I milk two cows with sore teats, for the help are liable to lose their patience with them. The teats began to crack, and thick scabs to form. The disease resembles cowpox, and spreads from the edges. I wash them with hot water, hot as I can stand, and keep putting on until the scabs peel off and the whole surface is clean and raw. Then carbolic acid is applied with a feather, and the surface blistered white to kill the germs. Then I apply vasoline to cure the burn. The farmer must be a veterinarian.

I feed the swine—milk and cornmeal to those that are fattening, wheat midds and water to the brood sows and sweat skim-milk to the little ones. I mix up a mash for the laying hens, so as to call them into their yards, and shut them in. They are out of mischief, and the eggs are laid where they can be found; still they must have a morning range for bugs and worms for economy of food and greater number of eggs. The farmer must understand the chemistry of food, both cost and effect.

Breakfast at 6.45 A. M. Going to the barn, the boy said: "I want some money to go to the boat race, baseball game," etc., naming a sum considerably larger than seems reasonable—larger than boys in my days spent in a month, but his wages are his. So I hand it to him and say: "I want to ask you to do one thing for me today. When you go to spend fifty cents ask yourself if you would be willing to work all day for what you are going to get. Will

acres and am back to the barn at 9.10 A. M. A farmer must understand agricultural machinery.

Putting the team on the smoothing harrow, the weeds are smoothed out of sight on an acre of early potatoes. The ground is stirred in the new peach orchard and the home supply of sweet corn. A small plot in the hog summer pasture is dragged four times and is sowed to rape, which is covered with a weeder. I turn out team for noon at 11.40 A. M.

More time was saved by this harrowing on time, more flea beetles were driven away, more growth of the one hundred peach trees was induced, more hog feed will be produced by this timely sowing and more money was saved in these two and one-half hours than would seem possible to those who do not try it. A farmer must economize on time.

A neighbor came after seed corn, which was weighed out for cash. The successful farmer has good varieties of all kinds of farm products, and makes money by the increased yield and also by getting an increased price. A farmer must be a salesman.

I next fill the incubator and brooder lamps. This should always be done at noon. They sometimes run up and smoke after refilling, and should be turned down. I feel safer when I go to bed at night if the lamps have been burning clear and steady since noon. Our six lamps have been burning most of the time steady for the last nine weeks, and we do not feel like taking chances.

Mrs. C. usually feeds the chickens, but today, as she has gone to town, I scatter cracked wheat and corn in the runs and put water in the cans. When chicks on this farm are allowed to roam they nearly all have the gapes, and most of them die. So this season we are keeping them confined to the house and small enclosed yards. We do not let them out into these yards until later in the morning, when the angle worms should all have gone back into the soil. In this way we hope to prevent the trouble. No remedy I have ever tried has done good with small chicks. By the time I get around I realize that she has considerable of a job of it.

After dinner I read and study on the problem of "Pinching Small Fruits" in the papers, and come to the conclusion that the trouble is "that a whole lot of what is known is not so." And I do not know who knows best.

One thing I do know, and that is the hay crop is about gone up, and we must have more corn, and at 2.30 I start for the field and plow till 6 P. M. I rather like a full nooning for the team, and have them "get

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Agricultural.

The Potency of Breed.

The breeder must depend for the improvement of his cattle and cows upon inheritance and the system of feeding, but many beginners who do not see immediate results of a system of careful breeding get discouraged and give up. A great many criticisms of breeding results are thus voiced through disappointment. A good many times calves inherit tendencies rather than the actual gifts which their sires possessed, and these tendencies require cultivation and encouragement to develop. Good breeding consists in recognizing such valuable tendencies and in catering to them. But time is required in some instances to make them at all consistent with one's ideas of what they should be. In the hands of good feeders and breeders dairy cows are producing larger supplies of milk and cream. Milk rich in butter fats is becoming more common, and feeding more economical. A cow can be fed today by a progressive dairyman at much less cost than it was possible ten years ago, and yet feed is higher. This is due to a better balanced ration, which means economy in cost on both ends. It produces more results, and it can be provided at less expense.

We have the breeds today which are well adapted to beef or butter-making, and these are becoming more common on our farms every year. Their general distribution argues well for the future of our cattle and dairy outlook. But to keep up the potency of these good breeds we must have the courage of our convictions, and the patience necessary to wait for results. We need to feed for a purpose, and to develop tendencies which will provide us with sure profits. Well-bred cows in the hands of ignorant people are sure to degenerate, and in time all their good points will be neutralized. It is necessary that we should have intelligence in feeding to bring out the best that there is in them. Educated men in this line of work will not only emphasize the value of the good breeds, but they will raise a standard of dairying and beef raising a little higher each year.

Ohio.

E. P. SMITH.

Butter Market.

It would seem that prices are as low now as they are likely to go this season, and some of the grocers, who usually put in supplies in June or July, have begun to stock up. Others hold back, and it is yet difficult to show which will win. The conditions all over the country favor a heavy make of butter for the next few weeks; but, on the other hand, the increased consumption is an offset to the increased production, and the surplus may not be more than can be easily taken care of.

The tone of the market shows a slight improvement as compared with a week ago, and a little firmer prices can be quoted on sales, yet there is no great activity, and large buyers are still holding back for further developments. They may be disappointed, as the outlook is for firm prices for some time to come.

Also prices quoted at Elgin and Canton may be significant if they indicate the filling of all orders from speculative buyers, but the stiffening up in New York market seems to check any decline in Boston. Of course the dealers here think a 21-cent market in the country is fully high for the way that butter is selling here, as the margin of profit is not very large at the present time.

Some of the dealers say they cannot get over 22 cents for fancy creamery, while others claim to be getting 22½ cents. If one wants to sell, it would seem as though 22 cents was the top of the market, while, on the other hand, if he wants to buy, he finds 22½ cents frequently asked. Buyers are critical as to quality, and where the flavor is the least off, or the coöperation is defective, no more than 21 to 21½ cents can be quoted.

There is considerable talk of what oleomargarine and butterine manufacturers are going to do under the new law, but so far as we know, not one of our butter dealers has taken out a license to handle any of the uncolored compounds.

The receipts of butter last week, closing on Thursday, were 30,763 tubs and 30,798 boxes, a total weight of 1,904,064 pounds, including 6400 pounds in transit for export, against 2,143,109 pounds the previous week, and 2,033,981 pounds the corresponding week last year. On Monday of this week receipts amounted to 513,454 pounds, and on Tuesday to 301,784 pounds, a total of 905,238 pounds, an increase over the same time last year of 308,989 pounds.

There were no exports of butter from Boston last week. For the corresponding week last year, the exports amounted to 41,176 pounds. No exports from New York. From Montreal 16,694 packages of butter were exported, against 12,349 packages last year.

The Quincy Market Cold Storage Company reports a stock of 114,337 tubs, against 141,690 tubs at the same time last year. The Eastern Company's stock is 23,181 tubs, against 23,010 tubs a year ago, and, with these holdings added, the total stock is 137,718 tubs, against 164,707 tubs last year, a difference of only 26,989 tubs in favor of last year. This shows that the stock is now increasing faster than a year ago and may soon be even with it.

Massachusetts Crop Report.

We have received from J. W. Stockwell, secretary of the Massachusetts State Board of Agriculture, the following crop report for the month of June.

Insects appear to have done but little damage as yet, the cold weather having, perhaps, operated to hold them in check. Potato bugs are as prevalent as usual, but are not reported as doing any particular damage. Other insects most complained of are striped cucumber beetles, squash bugs, rose bugs, canker worms, cut worms and tent caterpillars, from nine to twenty-five correspondents reporting the presence of each. Other insects mentioned are codling moths, currant worms, elm-leaf beetles, cabbage worms, wire worms, horn flies, asparagus beetles, white grubs, brown tail moths, gypsy moths, onion maggots, the San Jose scale, the plum curculio, the pea-weevil and a small black flea beetle on potato vines.

Indian corn is generally reported as very small and backward for the season, owing to the cool weather of the month. There is little complaint of the stand or color, however, and with warm weather it will doubtless come forward rapidly. There is a notable increase in acreage this year, a twenty per cent. increase seeming a conservative estimate for the State as a whole.

Haying had hardly begun at the time of making returns except in southeastern sections, where it was rather more advanced. By the date of issue it should be well under way in most sections. The crop will be short all over the State, although the reports indicate that it was much improved by the rains of the first half of the month. The

rains were also of much benefit to grass roots, and it is not unlikely that no-wings have suffered as much permanent injury as the short crop would ordinarily indicate.

The acreage of early potatoes shows a slight increase for the State as a whole. The vines are reported as looking extra well; in fact, the June reports have seldom been so encouraging in this regard, although potatoes are perhaps a little backward at this time.

Early market-garden crops have generally done well, and prices have perhaps ranged a little above the average. Asparagus was rather a light crop, but brought good prices. Later market-garden crops look well, and promise good yields with favorable conditions.

Dairy products appear to be about normal as to quantity, with a general increase in price all along the line. Still, the increase is hardly proportionate to the increased price of grain, and the profits will not exceed, if, indeed, they equal, those of former years. Dairy cows are in good demand, at prices even higher than the high level maintained for the last few years.

The rains of the month were of great benefit to pastures, which were generally reported as looking well, although there were a few complaints that the feed was still short, though green and growing.

Strawberries were late in ripening, but at the time of making returns picking was well under way in most sections, with the prospect of not more than a fair crop. Raspberries, blackberries and currants promise unusually well, with but few exceptions. Apples promise well in most sections, though Baldwin will not equal other varieties. Pears promise only a light crop. Cherries were rather light, but of good quality. Plums are reported to have set well and promise a good crop. Peaches now promise more than an average crop for this region. Wild berries set very heavily.

The Hay Trade.

The hay crop of the country seems to be assured, and from best authorities is ample for the requirements. The conditions seem to be changed from last year. Then the Eastern and Central States had a fair crop, while the crop in the West was very short; in fact, so much so that St. Louis and other southwestern markets took hay from territory never before tributary to these markets. This year the West has a large crop, and necessarily must look to the East

and Southeast for an outlet; and, as these sections are somewhat short of hay, the Western men expect to find a good market, with proper effort.

Arrivals of hay in the East have not been large, yet they have met the demand, and in some cases exceeded, particularly so in the low-grade offerings. With these conditions prevailing, little or no improvement can be looked for until next month. The coming crop seems to be steadily growing in quantity, the majority of the reports indicating less timothy and an abundance of clover and clover mixed, with the greater part containing a generous supply of weeds.

The Hay Trade Journal gives the following as the highest prices for hay in the markets mentioned under date of July 4: Boston \$18.50, New York \$18.50, Brooklyn \$20, Jersey City \$19, Philadelphia \$16.50; Pittsburg \$14.75, Pittsburg prairie \$10, Kansas City \$12.50, Kansas City prairie \$10, Duluth \$11.50, Duluth prairie \$7.50, Minneapolis \$11.50, Minneapolis prairie \$7.50, Baltimore \$16, Cincinnati \$13.50, Chicago \$14.50, Chicago prairie \$11.50, Richmond \$13.50, St. Louis \$15, St. Louis prairie \$9, Memphis \$13, Nashville \$16, Providence \$19.50, New Orleans \$17.50, New Orleans prairie \$9.50.

A sample bale of the first new timothy hay of the season was exhibited on the floor of the New Orleans Board of Trade on June 25. The bale was classed "choice" and was one of a consignment of 387 bales received on Tuesday over the Illinois Central Railroad, by a Kansas City, Mo., shipper. The above consignment was five days earlier than for the first shipment of 1901.

Among the various reports of the correspondents of the Hay Trade Journal we gather the following:

In New York State the crop will be a good average, and with favorable weather for curing will make a good showing. Jefferson County reports large crop with a very large proportion of clover-mixed hay. The northwestern part of the State (that is, Rochester points), the crop is very good indeed. In the southwestern part the crop is a little short.

As a whole, the crop throughout New York State will be uneven in quantity, according to locality, but, on the whole, more than an average cutting, with the larger part clover-mixed, medium and poor hay, so that the proportion of No. 1 and No. 2, while it may be greater than last year, will not be excessive. The hay counties of New York show less timothy than last year, with

a larger per cent. of mixed, while the total tonnage will no doubt equal the average.

In Ohio the reports seem to show that timothy hay will equal 50 per cent. of the crop, clover and clover-mixed 25 per cent. Old hay all gone from most sections. In some places there is still 10 per cent. of old hay to go to market. In Michigan only 5 to 10 per cent. of old hay is left over.

Dealers about here have made up the following condition of the market: Michigan, full average crop, quality excellent, much better than last year; Ohio, average crop, quality excellent, better than last year; New York, average crop, quality excellent, better than last year excepting in a few localities in the central part of the State, where it is light, weedy, and a large per cent. of clover; Ontario, full average crop, quality excellent, even better than last year; Maine, Vermont, Quebec and New Brunswick hardly up to the average in quantity, but of much better quality than last year.

The local crop in Massachusetts, Rhode Island, Connecticut and northern New Hampshire is lighter than last year and rather poor in quality. In Kennebec and Lincoln Counties, Me., correspondents report the crop fifteen per cent. short. Hay crop in eastern Massachusetts is quite light. The southern part of Connecticut promises to be short, as compared with last year.

A fair hay crop seems to be assured in the Province of Quebec, although it will not be as heavy as that of last year. The crop will be largely timothy. Of course a good deal depends upon the condition in which it is harvested. The pastures are looking well in Quebec, to the satisfaction of the dairying interest. There seem to be ample supplies of the old hay crop left over to meet all requirements between now and the time when the new crop will be available. The unusually cool weather for June along with the copious showers rather improved the hay crop.

At New York city total receipts for last week were 9853 tons, as against 9013 tons the week before, while the same week a year ago the receipts were 7098 tons, receipts of straw 600 tons, export in bales 19,961.

Receipts of hay in Boston for the past week were 664 cars of hay, 308 cars of which were billed for export; also 18 cars of straw. The corresponding week last year the receipts were 361 cars of hay, 74 cars of which were billed for export, and 11 cars of straw.

The Department of State is in receipt of a communication from the Consular Office at London, in which complaint is made of the manner in which the American apples are packed. The dealers and commission merchants in England admire the Canadian system of packing, and desire to know if it is not possible for Americans to pack their apples in the same manner. It is believed that by so doing the demand for best quality American apples, as well as prices, will increase.

The Canadian system in vogue is the grading and stamping of all apples by government officials. All barrels sent out without the stamp renders the sender liable to a fine of \$1 for each barrel.

Mr. Frederick V. Coville, the botanist of the Department of Agriculture, has left Washington on a tour of exploration in the far Northwest Pacific coast States. He expects to be absent from this city for a period of over two months, during which time he hopes to explore the botanical conditions of Crater Lake in the forest reserve recently established, and also to investigate the botanical plants used by the Klamath Indians as food.

A LITTLE OFF THE TOP.

Attic Wisdom at First Hands for House Owners, House Renters, House Builders and House Designers.

We have just received a book overrunning with practical suggestions about houses,—particularly about roofs and all kinds of roofing,—rich in interesting historical matter and artistic illustration. Its title is "A Fifty-Year Roof."

This book is issued by American Tin Plate Company for general distribution. It treats incidentally of M. F. Roofing Tin, the Norristown New Method termes and U. S. Eagle termes; but the greater part of its forty-eight pages is devoted to technical information that every house builder, designer, owner or renter should have at hand at all times. One chapter, "How to Construct a Tin Roof," contains many suggestions of inestimable value, and many facts familiar only to experienced builders. Following this are nearly fifty accurate tables and formulas of sizes, weights, gauges and measurements, needful in house building and repairing.

OLD BOSTON.

The series of old Boston cuts now appearing in these columns have been kindly loaned by the publishers of the Boston Budget, and were taken from the Old Boston Number of that publication, June 1, 1902. Copies of this number can be had by sending 25 cents to the Ploughman office.

Literature.

"Mrs. Tree," by Laura E. Richards, one of the new books published by Dana Estes Company, Boston, is another one of those interesting and highly entertaining additions to Mrs. Richards' most complete series of works. This author has written some very entertaining stories, among them "Captain January," "Darle," "Melody," etc. It is needless to state that she has many warm friends among our readers. "Mrs. Tree" is a very interesting tale, and with its seventeen chapters on adventure is sure to prove fascinating. The illustrations are of the finest order, and are very clever sketches of the character of the book. Mrs. Richards deserves the credit of being able to present her subjects with much cleverness and interest. Old Mrs. Tree is a most interesting character, sitting in her familiar easy chair before the fire knitting. Miss Phoebe and Tommy Candy, Solomon, his grandfather, are pictured very cleverly, and the introduction of a new postmaster in Miss Penny's shop are all very entertaining bits of description. This book is sure to be among the best of Mrs. Richards.

"Scarlet and Hyssop," by E. F. Benson and published by D. Appleton Company, New York, is a novel of much entertainment. Mr. Benson's other works, such as "Luck of the Vails," "Mammon & Co.," "DoDo" and the "Rabicon," which were very kindly received, are similar in general description to this new book, but we think Mr. Benson has developed his characters much better and made his story of greater interest than any of his previous works. This novel contains much originality, and is sure to be interesting and will make pleasant reading.

"Five Little Peppers Abroad," by Margaret Sidney, author of "Five Little Peppers and How They Grew," illustrated by Fanny Y. Corey and published by Lothrop Publishing Company, Boston, is one of the best of these works. This very newest of the Pepper stories is just as charming as the other famous books that have preceded it in the series. It takes mother Pepper, now mother Fisher, the little doctor, Polly and Phronsie over seas, with Grandpapa King, Jasper and Parson and Mrs. Henderson. There are new scenes and new experiences the brightness, the wit, the kindness, the keen knowledge of child nature that have made all the Pepper books so irresistible are just as conspicuous as they have been in the Pepper stories at home. The book is sure to be a large seller and will be a very popular one among the young people.

"The Gate of the Kiss," by John W. Harding, a book published by Lothrop Publishing Company, and illustrated by George Varrien, is a romance in the days of Hezekiah, King of Judah. This story picturesquely reproduces the court life of Eastern civilization among the Jews and Assyrians, with all its pomp and splendor and corruption, its dramatically contrasted high and low, its clashing good and evil. Great historical figures like Hezekiah, Isaiah and Sennacherib enliven it. It is written in a robust, full-colored style befitting this theme. It has no dull spots, and is a happy change from the "nothing doing," anemic kind of realistic fiction. The book is exceedingly popular and especially well gotten up and with its many beautiful illustrations is sure to attract a large number. Like all the books of this house it is typographically very fine.

Admirers of William Black will find enjoyment in reading the pages of the Sir Wemyss Reid's story of that deservedly popular English novelist's life. Writers of the Victorian era did not endure the pecuniary hardships, which characterized some of their predecessors in the literary history of England. Black was fortunate in this respect. His wants were supplied from birth, and success as a man of letters came early. He first embarked in a journalistic career, and represented the London Morning Star during the seven weeks war (1866), following the Prussian army in its advance into Austria. As a result of this experience he became an ardent admirer of everything German, which is one of the characteristics of his books. It was while he was on the staff of the Daily News that he attained fame as a novelist. After writing works which met with little favor with public or critics, Black resorted to the experiment of securing the publication of an anonymous novel, "A Daughter of Heth," in the hopes of obtaining the unbiased opinion of the reviewer, whose scorching criticisms had stung him. The story came out in the Glasgow Herald and was later published in book form without the name of the author attached thereto. The result surpassed Black's fondest expectations. The Saturday Review was the first to give it unstinted praise, and approbation from that paper was a passport to fame. Success was his, and with the royalties he proceeded to purchase some of the "good things of this life." His biographer does not think, however, that he was in the least spoiled. "The Strange Adventures of a Phaeton," "A Princess of Thule," "Three Feathers" and "Madcap Violet" followed in rapid succession. A novel a year was, in fact, the result of his literary labors thereafter, but the work showed no trace of haste. Black visited America in 1876, and at a dinner party in New York he was toasted by a venerable but badly informed toastmaster as "the author of Lorna Doone." Sir Wemyss appears to be thoroughly informed concerning Black's every-day life, and no feature of his career which is of public interest is omitted. There is, of course, the inevitable correspondence, but only those letters which are of some significance are given. We have a kindly, sympathetic picture of Black, in which there is much to admire, and little or nothing to shatter ideals. His books reflect the man to a considerable degree, and his death on Dec. 10, 1888, in his fifty-seventh year, was as generally regretted by his host of readers in this country as in England. [New York: Harper & Brothers.

Poultry.

Duck Raising.

Pekin and Aylesbury ducks raised on the farm are profitable above all other breeds, with preference given as a rule to the first. They are not only hardy and comparatively easy to raise, but they reach a heavy weight in a short time. They mature earlier than any other breed, and a pair of them will matured will weigh twenty pounds. Not only this, but their flavor is delicious, and they make excellent table birds. For this reason the demand for them is good in all our markets and they sell at all other breeds. When plucked and exhibited for sale they have an attractive appearance.

Good Pekin ducks are good layers, if one considers this point, and one will lay all the way from one hundred to 125 eggs in a season. In breeding them, however, care should be taken to select the best for raising young ducks. The stock is apt to run down quite rapidly unless one uses good methods to keep the standard high. Usually the first and best matured ducks of the previous season should be kept for breeding purposes, and not sold in the market. In this way one is sure of a good standard of birds. A point in favor of the Pekin is that it will thrive almost as well away from a pond or swimming water as near it. However, a little water for them to flounder around in is good for them, and tends to keep them in better health. A good many farms have low, swampy land where an excellent duck pond could be made at little expense. By digging out a little each season such a hollow could be made suitable for a duck pond. Even if there was no brook or spring in it water would collect there from rains and make a pond for a part of the year. In hatching duck eggs chicken hens should be used, or an incubator. It requires nearly a week longer for the duck eggs to hatch, and during the fourth week sprinkling them daily with lukewarm water helps.

Pennsylvania. ANNIE C. WEBSTER.

Timely Poultry Tips.

Plenty of shade now. Bushes and trees make it. Such places are cooler than shed shade, where lack of free circulation of air makes it very warm.

Every day or two spend some ground in a shady spot for the flock to dust in.

Keep the drinking vessels clean. Wash them out every evening and scald them out at least once a week. Replenish the water supply several times a day. Don't pour fresh water into the vessels, but throw out all the stale water and renew entirely with the fresh.

Look after the frail or puny chicks. Don't let them run with the others. If you will persist in keeping them, give them a chance by themselves where they cannot be trampled or crowded by robust, frisky growing youngsters.

Many of the vegetable wastes from the table are just the thing for little chicks. Mince them up fine and note how the chicks enjoy them.

The broods that hatch out in June, if well cared for, will produce pullets that will lay in early spring or late winter, when the egg product is bringing good prices. In fact, good care results in making July broods profitable.

Don't lose your enthusiasm and lessen your strictly business methods as the mercury runs up. Eternal vigilance when the thermometer registers above the 90° mark is more necessary than at any other time in the poultry yard. The duck "suffers" with unusual hot weather, and every effort possible should be observed that will make them more comfortable.

Remember that dampness in coops causes the usual troubles as well in hot weather as at any other season.

Don't sell eggs for incubator purposes and guarantee them to hatch any certain percent. You never know how the machine is going to run or how improperly it is going to be managed. The eggs you sell may be above the average percentage of fertility, but improper handling will get poor results. This is often proved by the hens hatching out on an average twelve out of thirteen, and the eggs from the same hens resulting unsatisfactorily when used in the incubator.

The poultryman who does not take interest enough to keep things neat and tidy never gets but a few rounds up the ladder of success.

This is the season when the lazy man who adopted poultry raising as an occupation suitable to his ideas, finds out he's got another guess.

If the henhouse windows are shaded in some way so as to keep the sun out of the house during the hot days it will make a material difference in the night temperature. It is cruelty to oblige the hens to roost on high roosts at this—and, as a matter of fact, for other reasons—any other season of the year.

Don't try to keep a lot of young chicks of various ages running in the same yards unless you desire to invite trouble and costly accidents.—Baltimore Sun.

Horticultural.

Union Crop Prospect.

In New York: Madison County—Acreage seeded about 100, being an increase of about six per cent over a year ago; mostly Yellow Globe Danvers, with a small scattering acreage of Red Globes. A great deal of re-seeding done, some estimating as high as two-thirds. Heavy winds and excessive wetting early in the season, followed by continuous wet weather, which has made re-seeding almost impossible, places the present condition of the crop in this county about better than a year ago, when it was very poor.

Montgomery County—An increase in acreage of 20 per cent is reported, but like the adjoining county of Madison, the damage done by winds, freezing and weeds have greatly reduced this. Onions very thin on the ground; some fields have been plowed up and generally the condition of the crop unfavorable, probably as bad as a year ago.

Wayne County—Estimated acreage 1000, about 150 greater than last year. With the exception of the district about Ontario the crop reports are a much more favorable condition than a year ago, when they were very bad. The onions are somewhat thin on the ground and quite weedy. No alfalfa yellow.

Washington County—Two hundred and fifty acres seeded, being an increase of 100 acres over last year, of which two-thirds are Red Globes, one-third Yellow Globes. Some 30 acres blown out and some damaged from mazzes. Excessive wet weather has prevented weeding, and as a whole the condition of the crop at this time is as favorable as a year ago.

Orange County—One thousand six hun-

dred acres seeded, about the same as last season, of which three-fourths are Red Globes, balance Yellow. Some little damage from wind and poor seed. However, our correspondent reports that the crop is looking well, and conditions generally more favorable than a year ago.

In Ohio: Wayne-Medina Counties—Acreage 300—about the same as last year—of which two-thirds are Yellow Globe and one-third Red. A little damage reported from winds and early frosts, but nothing serious, and on the whole the crop is looking better than a year ago at this time.

Lake County—Acreage in entire district estimated 800 to 1000 acres—being an increase of about 10 per cent—nearly all Yellow Globes. Some little damage from wind and some washed out, but as a whole our correspondents report the crop in good condition, as good, if not better, than a year ago.

Hardin County—About 1100 acres seeded, an increase of 10 per cent. Over last year of which 45 per cent. were Yellow Globes, 35 per cent. red and 20 per cent. white. At seeding time the fields were very dry, and the prevailing high winds took out nearly one-third of the first acreage sown. Severe frosts also played havoc with the crop, and the onions that are still in the fields are very thin and backward, and it is doubtful if Hardin County will produce as many onions as a year ago when the crop was very short.

Lucas County—One hundred and sixty acres seeded—an increase of fifty acres over last year—of which three-fourths are yellow, balance Red Globes. Some little damage by wind and considerable complaint of seed not germinating well, making the onions rather a thin stand. Conditions of crop hardly as favorable as last season.

Wyandot County—Estimated acreage 240, for a part of the year, the greater portion being to Yellow Globe. Considerable destruction by wireworms and wind, but as a whole looking much better than last year, when the condition of the crop was very poor.

Trumbull County and the adjoining district in Pennsylvania report a small increase in acreage and the crop in better condition than last year. Nearly all Yellow Globes.

Michigan is the one onion-growing State which this season has apparently been immune from wind storms or other destruction to the onion crop, nearly all our correspondents reporting the crop in good condition. At Chelsea the outlook is better than a year ago, and a like condition exists in the Mason district. It is estimated that the acreage of the State is ten to fifteen per cent greater than a year ago, and about equally divided between Red and Yellow Globes.

In Wisconsin: In the Green Bay District the acreage is estimated to be 25 per cent greater than ever before, or some 125 acres in all, of which about three-fourths are Red Globes, balance Yellow. Some damage reported from onion maggot, though otherwise the crop is promising well. About Chicago our correspondent credits that the onions will not exceed half a crop, the continuous wet weather permitting the weeds to get such a start that some fields are being plowed under.

In Chicago District: About 500 acres seeded, 50 per cent. being Yellow, balance about equal of Red and White onions. It is estimated that the acreage put out originally was one-third greater than last season, though our correspondent advises us that one-half of the crop has been destroyed by wind and wet weather. No re-seeding done.

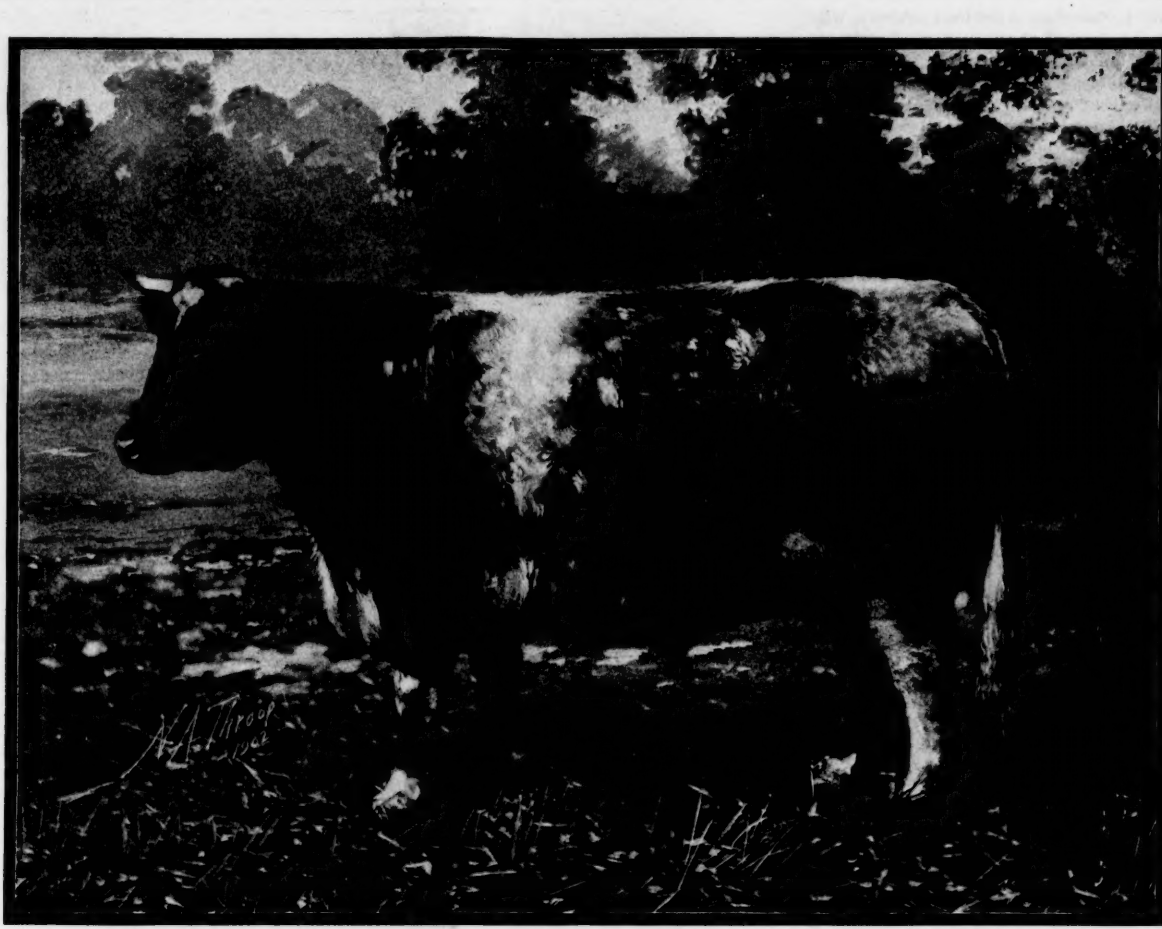
Reports from the Nappanee (Ind.) district state the acreage seeded there was about 600 acres—being an increase over last year of 100 acres—70 per cent. of which are Yellow Globes, the balance being both Red and White. Some damage done by wind, blight and continuous wet weather, although the crop is reported to be in as good condition as a year ago. In the new Wheatfield district some 125 acres were seeded, but our correspondent advises us that the entire crop was drowned out, and is an utter failure. About Knox, where a small acreage is grown, the outlook is reported poor, wind and wet weather destroying one-fourth of the crop. At Albion some 150 acres were seeded, an increase of 100 acres over last year. Wind has thinned the onions some, but as a whole they are promising well. At Fort Wayne a small acreage was seeded, but this has been reduced one-fourth by wind storms. Since making the above report news has reached us from the Nappanee district that it has been raining there for four days and nights, and the crop is all under water.

Our Connecticut correspondents give the increase in acreage in this State from 25 to 30 per cent., but little complaint from insects or other causes, and the crop in better condition than at this time last year. Massachusetts also reports a considerable increase in acreage, and complains more or less of destruction by wind and rain, and also of poor seed causing a considerable amount of re-seeding. Rhode Island advises state that the acreage in that State has fallen off 25 to 40 per cent., as compared with last year, and that the crop at present is not looking as well as expected. Vermont reports a moderate increase in acreage, but from destruction by cut worms and other causes is not looking as well as a year ago.—Circular Jerome B. Rice Seed Company.

Vegetables in Boston Market.

There is a lively business in vegetables during the forenoon, and some stirring in the afternoon, but not as lively. The new order that the wagons shall not stay in the street seems to check the buyers from suburban markets, and some from nearby small markets. Prices are a little easier than last week. Beets still at 90 cents to \$1 a box. Carrots at \$2 a box or \$2.50 a bushel. Parsnips are at \$2.75 a hundred bunches. Parsnips are done for a while. Flat turnips sell at 50 to 75 cents a box, and yellow at \$1.50 a barrel. Onions are in good supply. Some native at \$1.15 a bushel, \$2.50 a hundred bunches, Bermuda \$1.85 to \$2.25 a crate, Egyptian \$2.50 a sack, but nearly done. Kentucky \$2.75 to \$3 a barrel, and New Orleans \$1.25 to \$1.35 a bag. Leek are 50 cents a dozen bunches and chives 75 cents. Radishes 75 cents to \$1 a box. Celery from 20 cents a small bunch to 50 cents a large bunch. Egg plants from \$1.50 to \$1.75 a case. Native cucumbers \$2 to \$2.50 a box for No. 1 and \$1.50 to \$2 for No. 2. Southern 30 cents a basket. Hot-house tomatoes \$1.25 to \$1.50 a carrier. Marrow squash \$1 to \$1.50 a barrel crate and white 50 to 75 cents a basket. Rhubarb 2 cents a pound and mushrooms 75 cents to \$1.

Cabbages are plenty, and it takes good stock to bring \$1 a barrel or \$5 a hundred. Cauliflowers are scarce at \$1.25 to \$1.50 a box. Spinach is 35 to 40 cents a bushel and beet greens 15 to 20 cents. Lettuce fair to prime 10 to 25 cents a dozen. Asparagus nearly done at \$4 to \$5 a box of 3 dozen.



SCOTCH BRED SHORTHORN, MARY 14th.

Owned by E. S. Kelly, Esq.

Parsley 25 cents a bushel and romaine 50 to 60 cents a dozen. Mint 35 to 40 cents a dozen and water cress 35 to 40 cents. Native string beans \$1.25 to \$1.50 a box and Southern slow sale at 25 to 50 cents a basket. Native green peas \$1.75 to \$2.25 a bushel, as to variety and quality.

Scarcely enough of potatoes to make a quotation, though a few can be found at 90 cents to \$1 a bushel. Southern Rose and Hebron \$2.50 to \$2.75 a barrel for extra, and \$2.25 to \$2.50 for fair to good. Bliss white \$2.25 and Red \$2 to \$2.25.

Domestic and Foreign Fruits.

Old apples are quiet; but \$55 barrels came in last week, while a year ago only 389 barrels were received. Ben Davis sold at \$4 to \$4.50, and Russets at \$4 to \$5.50. No. 2 \$2.50 to \$3.50, Norfolk green at 75 cents to \$1.25 a basket, and Maryland or Delawares 50 to 75 cents a basket, or 50 cents to \$1 a bushel crate. Georgia peaches 75 cents to \$1.50 a carrier as to variety. Florida Le Conte pears \$4 to \$5 a barrel. Cherries at 8 cents a pound for large dark and 6 cents for red or white. Native strawberries nearly done at 8 to 12 cents, and some western New York at 8 to 14 cents. Delaware blackberries, cultivated 6 to 10 cents a box, and small at 4 to 7 cents. Blueberries, native 14 to 18 cents, Pennsylvania 12 cents, and Carolina 9 to 10 cents. Raspberries 7 to 8 cents a pint, 3 to 4 cents a cup. Currants 7 to 8 cents a quart for large, and 4 to 5 cents for small. Gooseberries 6 to 8 cents a quart. Muskumelon 50 cents to \$1.25 a crate. Watermelons in good supply, a few large selling at \$28 to \$30 per hundred, but more at \$20 to \$25, and small at \$12 to \$15. Pineapples plenty, Indian River 24 cents \$2.25 to \$2.50 a case, others \$2 to \$2.50, Cuban \$2 to \$2.25. California apricots \$1 to \$1.50 a case and plums \$1.50 to \$2.

Only a light supply of oranges. Late Valencia 150, 170 and 200 cents choice, \$4.25 a box, 120 and 250 cents \$2.75, and 300 cents \$3.50. St. Michaels about 25 cents extra for some counts. Mediterranean sweets and seedlings 150, 170 and 200 cents, \$3.75; 216 cents \$2.25 to \$2.50. Rodi, full boxes \$4.50, half boxes \$2.50. Sorrento, 160 cents \$3 and 200 cents \$2.50. Lemons, Malori fancy \$3.75, choice \$3.50, common \$3. Figs scarce at 12 cents, and dated at 4 cents. Bananas in full supply at \$1.65 to \$1.85 for eight hands. No. 1 \$1.75 to \$2.25 and No. 2 \$1.25 to \$1.50.

Hay continues firm; straw steady; millfeed steady. Hay, \$14.18; fancy and jobbing, \$18.50; 20 ry straw, \$17.18; oat straw, \$8.12; sack, spring hay, to ship, \$23.50; 20 ry winter, \$21.25; 21.50; middling, \$23.50; mixed feed, \$23.24; seed, \$27; cuttimed meal, \$28.25; 20 ry; linseed meal, \$28.50 for new process.

Pork products are unchanged: Short cuts and heavy hams \$25.50, long cut \$24, medium \$22.50, lean ends \$24.50, bean pork \$19.50 to \$20, fresh ribs 15 cents, corned and fresh shoulders 11½ cents, smoked shoulders 11½ cents, laid 12 cents, in pairs 12 to 13 cents, hams 14 to 14½ cents, skinned hams 13 cents, sausage 11 cents, Frankfurt sausage 11 cents, boiled hams 20 to 20½ cents, bacon 14½ to 15 cents, bologna 10 cents, pressed ham 14½ cents, raw laid 12½ cents, rendered leaf 12½ cents, in pairs 12½ to 13½ cents, pork tongues \$25.50, loose salt pork 12½ cents, brisquets 13 cents, sausage meat 10½ cents, country dressed hogs 9½ cents.

In Rotterdam, New Zealand, there is an immense geyser which covers an area an acre in extent, and constantly throws columns of water to vast heights, some of them ascending three hundred feet, with clouds of steam which go much higher.

The exports from the port of Boston for the week ended July 5 included 108,835 pounds of cheese and 27,580 pounds of oleo. For the same week a year ago the exports included 414,776 pounds of butter, 99,998 pounds of cheese and 64,000 pounds of oleo.

Exports of dairy products from New York for the week ending July 5 were 3046 pack cases of butter, of which 2933 went to Liverpool and 123 to London.

The total shipments of boots and shoes from Boston this week have been \$3,082 cases as against \$2,562 cases last week; corresponding period last year 101,761. The total shipments thus far in 1902 have been 2,450,582 cases, against 2,171,873 cases in 1901.

The egg market has been gaining strength for several days past, and is fully one cent higher than last week. Strictly choice Western are getting scarcer, and the most desirable marks command 10 to 15 cents, while some Northwestern lots, closely candled, bring 10½ to 20 cents. The average range is to 19½ cents. Fair to good lots range from 17 to 18 cents. Buyers are discriminating closely between good and choice. Eastern fresh gathered range from 18½ to 20 cents, with fancy nearby lots at 22 to 23 cents. If a hot spell of weather sets in fancy fresh eggs will go higher. The stock in cold storage foots up 184,422 cases, against 212,830 cases same time last year a shortage of 28,388 cases as compared with last year. The outlook for the held stock appears brighter every week.

Our correspondent, H. M. Porter, writes as follows from Tilton, N. H., under date of July 8: "Farm matters in the counties of southern New Hampshire are much the same as generally reported from the Eastern States. Some fears have been expressed concerning the grass crop, which the late rains have largely displaced. The outlook is now fairly good, with no fields yet seen fully grown, though harvesting has commenced. Corn is backward, though potatoes were never uniformly fine. Every peach tree is bearing and apples promise well, even the Baldwins."

MAINE.

Worcester South, Sturbridge..... Sept. 11-12

Worcester West, Barre..... Sept. 25-26

MAINE.

Maine State Agricultural, Lewiston..... Sept. 1-5

Eastern Maine Fair Association, Bangor..... Sept. 1-5

Maine State Pomological..... Sept. 25-26

Androscoggin County, Livermore Falls..... Aug. 28-29

Durham Agricultural, Durham..... Sept. 1-5

Sack County, Houlton..... Sept. 1-5

North Aroostook, Presque Isle..... Sept. 9-11

Southern Aroostook, Sherman Mills..... Sept. 1-5

Madawaska, Madawaska..... Oct. 18

Winnipeg County, Goshen..... Sept. 16-18

Northern Cumberland, Harrison..... Oct. 7-8

Cumberland Farmers' Club, W. Cumberland..... Sept. 24-25

Gray Fair Association, Gray Corner..... Sept. 30-Oct. 2

Bridgton Farmers' Club, Bridgton..... Sept. 16-17

New Gloucester and Danville, Upper Gloucester..... Sept. 24, 25

Lake View Park, East Sebago..... Sept. 24, 25

Franklin County, Farmington..... Sept. 16-18

North Franklin, Phillips..... Sept. 9-11

Hancock County Agricultural, Bluehill..... Sept. 18-20

Hancock County Fair Association, Ellsworth..... Sept. 18-20

Northern Hancock, Amherst..... Sept. 24, 25

Eden Agricultural, Eden..... Sept. 24, 25

Sagadahoc County, Readfield..... Sept. 23-25

South Kennebec, South Windsor..... Sept. 18-19

Ittson Agricultural and Trotting Park Association, East Pittston..... Sept. 9-10

Sagadahoc County, Topsham..... Sept. 24, 25

Lincoln County, Danversville..... Sept. 30-Oct. 2

Bristol, Bristol Mills..... Sept. 23-25

Waldo County, South Paris..... Sept. 16-18

North Waldo, Bethel..... Sept. 16-18

West Waldo, Fryeburg..... Sept. 30-Oct. 2

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Penobscot County, Bangor..... Sept. 30-Oct. 2

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MASSACHUSETTS PLOUGHMAN

The tents are up at Camp Lakeville.

The dove of peace is again at home in Pawtucket.

The sun came out just in time for the big launching at Fore River.

Who will be the Wellington of Wakefield's hard-pine worm?

Sometimes it is almost too warm to get ting to that cool place just out of town.

John Sullivan is now numerically greater in the Boston Directory than his rival, John Smith, but John L. Sullivan still remains unique and almost impersonal.

If Aginaldo comes to Boston he will certainly be stared at on the streets; he will be stared at even if he comes in disguise. We have the habit even when we are not personally interested in the object of it.

We are inclined to thank Prof. Goldwin Smith for his remarks on our present tendency to defy force. The tendency is very evidently present, and, like all tendencies, it is a dangerous thing for the extremists.

The lecture course at the Old South offers its usual excellent menu; in fact, it would do no harm if a good many of the business offices in the neighborhood suspended operations long enough to attend the lectures. As a nation we are by no means universally up in our own history.

The Chief of Police of Manchester combines a sense of duty with a bit of tape. The automobilist may object to the combination, but the pedestrian would probably welcome it in various other sections of the country as well as Manchester.

In these days of hurry and excitement there is a certain relief in thinking of the American-Russian chess match now begun between one player at Canton, O., and another at Warsaw. The moves are being made by mail, and fourteen days are necessary for the exchange of each letter. The game itself is likely to take five years, which is certainly leisure enough to satisfy even a chess player.

The Delaware station sends out the following formula for spraying peach and plum trees to prevent the rot of fruit: One pound of carbonate of copper in forty gallons of water. Mix the carbonate with water enough to make a paste, then dilute with the required amount of water. This is said to have proven an efficient remedy, is not injurious to the leaf of the tree or the health of those who eat the fruit, and very inexpensive. The time of applying it should be when the fruit is nearly grown, but has not begun to ripen.

We have not yet read of much damage done by the seventeen-year locust. While it is said that there may be a million of them on an acre, and 22,500 holes from which they have emerged have been found under one birch tree, they are reported by the experiment station at Geneva, N. Y., to be doing but little damage, excepting to tender twigs, vines and trees, which wither and die when the female lays her eggs in them. A cutting and burning of all such trees should reduce their number by destroying the larva before they enter the ground. As they remain here but from five to six weeks, and then disappear for seventeen years, they are not the worst insect plague we have.

The value of topdressing the grass land after it has been mown in June or July does not consist entirely in the possibility of obtaining a second crop the same year, though with a wet season directly after the grass has been cut and the manure spread, this is often an important item. But then the ground is hard and does not cut into ruts by the cart wheels, and later rains may so fertilize the roots that they will not only withstand the severity of the winter, but prove most productive the next spring. We have seen land so treated yearly for many years, and the season after the mowing had cut the grass seed and clover upon the thin places in newly sown land after this top-dressing helps much to make a thicker stand, especially if those places are harrowed over before the seed is sown. We would sow the grass seed in the fall and the clover in the spring, as early as possible. There are some soils in which clover comes so naturally that the seed need not be sown, and if there is a good showing of it in the spring it may be decided that the seed is from some previous crop that has grown there, and that no seed need be sown, but usually the crops that come in after the fall mowing are timothy, red-top and June grass, with possibly a little sweet vernal grass and some other of the wild grasses.

The proposed bill to allow a pension to those men who were conscripted into the Confederate Army, and deserted to join the Union Army, and those who deserted the Union Army and later re-enlisted, is served to obtain an honorable discharge, is not an unjust or unreasonable one. Those who deserted the Confederate Army to join the Union forces were taking a double risk, the risk of the battlefield, and the risk of being shot as deserters if they were taken prisoners and recognized. Most of them were Union men from the first, at least those of the border States, as in West Virginia and Tennessee, but they had tried to remain neutral that they might protect their families. Of the other class we know but a few. One was with us when we left home. A few months later, during the time of McClellan's masterly inactivity around Washington, he learned that his mother was very ill, probably dying, and he applied for a furlough. His request was denied by the commanding general, and he took a furlough, reached home in time to see his mother and be present at her burial, then enlisted in a regiment from another State and served to the end of the war. If he is living and needs a pension, we hope he will get it. His service was not much more than that of the boy who plays truant from school.

The proclamation of a general amnesty in the Philippine Islands and the giving freedom to the former insurgent leader does not seem to be as satisfactory to him as it is to those who were his followers, and we may say that he seems to fear that some of them will seek to revenge themselves for the tyrannous conduct of which he was guilty, while trying to gain a place as president, king or emperor of the numerous tribes which inhabit those islands, and to conquer or massacre all the white in-

habitants, including American soldiers, who could be found there. Now he wants those same soldiers to guard him against those whom he formerly commanded. Probably they will try to do so, but "the arm of revenge is long," says an old proverb, and we fear that not even American soldiers can protect him if he remains upon the island. Our future course there must be like our policy among the Indians of the northwest: first, to restrain them from making war upon, or murdering, in cold blood, the whites who are among them; and next, to restrain them from war among themselves. If this policy has not always proved to be a success, at least we have succeeded in having a period of peace, and we hope for as good success there.

Nursery Tree Protection.

Nurserymen should find it to their interest to protect their buyers of trees from introducing inferior stock or infected stock on their farms, and I have found that the honest nurserymen who try to do this invariably get the best trade. Farmers and fruit-growers should co-operate in trying to drive out of business, by neglecting them, those who deal in diseased stock or inferior grades. A good many of the State legislators are passing laws now making it necessary for all nurserymen to register, and then to have their stock examined. In this way it is hoped to prevent the spread of noxious insects, blights and other tree and vine diseases.

Some States are lax in this respect, and the trees sold in those States should be examined critically by buyers. The fact is, more harm has been done to the fruit business by irresponsible nurserymen than most of us imagine. It was a common practice a few years ago for such men to offer nursery stock that were not according to the variety advertised, but the purchaser could not tell this until several years had elapsed after planting.

When a fruit grower buys a certain variety of apple, peach, pear or plum tree it is exasperating to find that he has a totally different variety several years later. Not every purchaser is supposed to be able to distinguish one variety from another just by examining the stock. Therefore he must depend upon the honesty of the nurseryman. It is not sufficient to be told that the trees will be replaced at half price or at no cost. It is the time lost in raising the trees that can be made up. We should simply drop from our business list all such nurserymen.

We need protection from this quarter both by the State Legislatures and through our own intelligent co-operation. If we find a dishonest dealer in nursery stock he should publish the fact to all his friends as far and wide as possible. It is dishonesty to keep the matter quiet and let some other farmer be cheated. Yet there are plenty of nurserymen who will have the effrontery to ask you not to tell your friends as it might ruin their business. But we wish to ruin it.

Alfalfa Culture.

Alfalfa has in many parts of the country crowded out clover, and the latter is being neglected more and more every year in many of the Western States. A good deal of the virtues of this crop has not been fully appreciated until recently, and a lack of general knowledge of how to cultivate and feed the crop has prevented it from becoming more popular than it is. This is particularly true of the East. The Kansas station has endeavored to help farmers in the matter of feeding as well as cultivating the crop, and some practical information comes from the bulletins of that station that should be considered carefully. One of the greatest mistakes made with alfalfa is in not cutting it at the proper time. The first growth, as a rule, is left to stand too long to get the full nutriment from it. We are gradually learning that alfalfa at the season when but a few of the blooms are open has a far higher feeding value than when cut later. The increase in the feeding value is sometimes from ten to twenty per cent. Moreover, there is a distinct gain through the increase in the second and third cuttings. The crop is one that produces enormously, and to get as much as possible from each cutting is the desire of the farmer. Late cutting of alfalfa in cold climates will often prevent the crop from ripening so that a second one can be made in the same season. We need to raise more alfalfa in nearly all parts of the country, but we also need to give it the very best system of culture to insure the most satisfactory results. A little practical experiment goes a long way to help all farmers in handling the crop.

The Crops in the Kennebec Region.

The season thus far, here in the Kennebec region, Maine, has been one of strange peculiarities. The weather has been very cool and wet, with high winds as the rule. The soil has needed the bright, warm sunshine in order to warm it up to action, yet the crops are looking fairly well, with the exception of the corn crop. This latter crop looks small, as a rule, for the corn plants really need sun and warmth to bring them forward to perfection. Other crops can get along fairly well with less sunshine and warmth.

We are still hoping the clouds and cool winds will pass away and warmer weather will prevail in the near future. A large area has been planted to corn the past season, as the high prices of meal and other feed have stimulated our farmers to increased attention to this important crop.

At this date (July 3) potatoes, oats, beans and other grain are looking finely. The apple crop will be light and shipping apples must bring good prices, especially good winter varieties. Garden truck is looking well, with a full average at this time.

The hay crop will be an average one, and in this vicinity will make close up to one hundred points, and if we have good weather to harvest the crop, our farmers will not have the blues seriously.

Quite a business is being done here, near the cities, in the cabbage line, and growers report the crop to be forward and in a prosperous condition. Early cabbage sells well in our markets, and the growers, as a rule, make a paying crop along the Kennebec valley.

Wages are high and help is very scarce. Good men command high wages at haying and general farm work. Most of our farms are being run with a scarcity of hands, while farm owners, as a rule, have to hustle to keep up with their haying and general farm work, frequently not knowing where to obtain help at any reasonable price. Those who are willing to labor cannot say that they cannot get work with good pay, neither can they complain of hard times with any degree of truth, this season at least.

Lumber is bringing high prices and builders are somewhat bothered in getting a supply of such kinds as they need. Carpenters can get all the employment they de-



REV. W. H. ALLBRIGHT,
Pastor Pilgrim Congregational Church, Dorchester.

quire at good wages. Stone masons have all the work they care for, as very many bridges and dams were carried off in the great freshet last winter. The cost of building and repairing these bridges and roads is such as will demand large sums of money of our towns the coming season.

Importance of Good Seed.

Several bulletins have been published by the State experiment stations in the last year regarding the necessity of getting good seeds for all farm crops in order to secure a large yield; but one point which has not been thoroughly emphasized is that of buying and planting clean seed and full weight seed. Clean seed of grass and wheat will prevent the broadcast sowing of weeds, which today cost the farmers an immense amount of unnecessary labor in pulling up and cutting down. In order to suppress the weeds in our fields it is absolutely necessary that their seeds should not be sown either by the wind or the farmer. How can we prevent this?

The old fanning mills rarely separated the weed seeds from the good seeds, but modern high-power mills can be relied upon to do this better. It is the business of the seedman to furnish clean seed, and if they do not their seed should not be bought; and the farmer should undertake to get it himself. It is possible by repeatedly putting the seed through fanning mills to make it clean, and if that will not do it run it through sieves. All such extra labor will be rewarded in time.

By running seeds through sieves, with the right-size mesh, it is possible to separate a good deal of the light weight and broken seed from the rest. This of itself will prove a great saving. This light weight and broken seed will either refuse to germinate or produce such small, inferior stalks that they are of little use. We cannot afford to sow such seed, if we would have standard crops. See to it that all seed is clean seed and full-weight seed.

Save the Heifer Calves.

Butter has been very high, and so are cows and beef. There are other causes, evidently, besides the cost of grain that have kept the prices of butter at such unusual figures during a time of year when they are pretty apt to go the other way.

Cows may not have done as well since last fall as in most seasons, from various causes, but this would, to some extent, account for the diminished yield of butter and higher prices. At the latter part of April the receipts at the Boston market were a full quarter less than a year ago, and it had been more than this for the previous two months.

There is undoubtedly much change being made in some parts of the country, particularly in the West, from dairying to beef raising. While this might not reduce the number of cows kept, it would naturally tend to a less production of butter than where strictly dairy breeds of cows are kept.

Again, on account of the short crop of corn raised, and also of hay in some parts of the country, it is probable that some of the poorer cows were disposed of at the commencement of winter, thus reducing the number to some extent.

An argument is also presented by some writers in undertaking to account for the diminished butter product, that the hitherto free pasturing at some places in the West are becoming largely curtailed by settlement. While this may be the case, yet if these government lands are being taken by farmers, it would seem that more stock, and especially more cows, would be kept than there used to be in the years past.

The New England Homestead, in an article on "Future Dairy Prices," produces these facts to account for the rise and probable continuance of higher prices for dairy products, which appear to be worthy of credence: The most important factor is the shortage of milk cows in the United States, compared with the population. While population has gained twenty-two per cent. since 1900, the number of milk cows during the same period gained less than four per cent. In other words, population has increased several times as fast as the number of cows on which dependence must be made for supplies of milk, butter and cheese.

This is the average for the whole United States, yet there is a greater difference in some parts than in others. In Michigan, Wisconsin, Minnesota, Iowa, Nebraska and Illinois, population increased nearly twenty-one per cent. in the last decade, while the number of milk cows gained but 5.7 per cent. In New England the gain in number of cows was 8.6 per cent., while the population made a gain of nineteen per cent. The poorest showing was in the great dairy States of New York, Pennsylvania and Ohio, where the population increased nineteen per cent. and the dairy herds only three per cent., or a little more.

The increasing amount of milk and cream that is continually being called for by people in the cities and large villages, necessitating the extending of the routes for their collection farther and farther into the country, is also a fact that should not be overlooked in this matter of demand and supply.

These are some of the causes, at least, that show conclusively that there is a deficiency

in dairy stock that farmers should undertake to supply.

The high prices for meat results in the feeding of many calves for the butcher. At such times it is quite a profitable business but it should be properly pursued. Farmers should not be induced to sell their most promising heifer calves for this purpose, even at good prices, for they should be worth much more on the farm for cows, or if not all are wanted they will sell very readily either as heifers or cows to those who desire superior stock.

Franklin County, Vt. E. R. TOWLE.

The Culture of the Grape.

Grape vines will not thrive on low, wet soils; they succeed best on high, dry ground having enough slope to carry off all surplus water.

A location giving a fine circulation of air is desirable, as in such locations there is less liability to mildew of foliage or rotting of the fruit.

Grapes do well on either gravelly, sandy or clayey soil, or on a combination of these. If planted on clay soil, it must be thoroughly underdrained to secure good results. Any good, dry soil of sufficient fertility to produce good farm crops, is suitable for vineyard planting, if climate and exposure are favorable. It is not desirable to put manure or fertilizers of any kind in the hole when planting. The roots will quickly find their necessary food if it is in the soil.

When planting, place twenty-five or fifty vines in a pair of water, taking one vine from the water as needed, thus avoiding the danger of injury to the roots by drying. Spread the roots horizontally in the bottom of the hole, in as nearly a natural position as possible, taking care not to have them cross each other. Cover with good fine surface soil two to three inches deep, then step into the hole and tread the earth down thoroughly with both feet. Again fill the hole full, treading it the second time, and finish with sufficient earth to cover the vine so that only one or two buds will be above the surface. The last filling should be not trodden, but be left loose to act as mulch. This firming or treading the soil is essential to success and should never be neglected. When planted in deep furrows most of the filling can be done with a plow, turning a back furrow against the vines, at the same time filling the dead furrow; but the treading and firming should be done as above.

If the tops of the vines are below the general surface of the ground, the hole may remain partly unfilled in the shape of a basin, to be gradually filled in as growth progresses.

Deep planting is recommended, as it insures a tier of roots so far below the surface that there is little danger of injury by freezing, or by burning or scalding when the soil becomes hot on the surface.

During the first summer after planting, cultivate the soil thoroughly and hoe frequently about the vines, allowing no weeds to grow. Stirring the ground frequently, especially in dry weather, acts as a stimulant to growth, the finely pulverized soil forming the best kind of mulch. Do not attempt to grow farm crops of any kind between the rows; or, if you must grow something, let it be peas, beans or early potatoes. It is not necessary or advisable to tie up the young canes the first summer; let them lie on the ground.—American Gardening.

Semi-Centennial Anniversary.

The Massachusetts State Board of Agriculture will celebrate its semi-centennial at Horticultural Hall, Boston, on Tuesday, July 22, with anniversary exercises in the morning and a dinner and social reunion at 1 P. M. The meeting promises to be a notable gathering of the agriculturists of the East, many from neighboring States having signified their intention to be present.

At the anniversary exercises, which will be held at ten-thirty o'clock, the principal speakers will be ex-Governor Boutwell, who presided at the organization of the board fifty years ago; Lieutenant-Governor Bates, Frank H. Hitchcock, chief of the division of foreign markets of the United States Department of Agriculture, and President Goodell of the Massachusetts Agricultural College. It is hoped that ex-Governor Long may be present and address the meeting.

Hon. John E. Russell, past secretary of the board, is unable to be present, but will send a remonstrance letter to be read, treating of his term of service with the board. Hon. William R. Session of Springfield, who was for twelve years secretary of the board, and who is now its first vice-president, is expected to preside. Gen. Curtis Guild, Hon. Michael J. Murray, Speaker Myers and President Hadwin of the Massachusetts Horticultural Society, have already indicated their intention of being present at the dinner. All the present members of the board and most of the living past members will be in attendance. There will be afternoon speaking by the invited guests and by members of the board. The occasion promises to be most enjoyable. Ladies are invited to be present at both the morning and afternoon exercises, and the dinner will be more of a social reunion than a formal

affair. All those interested in agriculture will find a hearty welcome at both sessions. At 9 A. M. the board will hold a business meeting to elect an inspector of nurseries, to consider and act upon the semi-annual report of the Cattle Bureau of the board, to take action under the resolve of this year's Legislature providing for an investigation as to the feasibility of the manufacture of vaccine lymph at the Massachusetts Agricultural College, and to transact other business of minor importance.

Notes from Washington, D. C.

During the past week the American Association of Farmers' Institute Work has been holding its sessions in Washington. Early in the session the reports which were presented from the various States and Canada indicated that interest in the Farmers' Institute movement is growing, and that the farmers are now desiring scientific men to address them on farming subjects, and that they are realizing the value of scientific knowledge in agricultural pursuits.

President Amos in his annual address told of the work in Maryland, and said interest in the project is steadily increasing. Mr. John Hamilton, secretary of the Pennsylvania State Board of Agriculture, presented a paper on "The Farmers' Institute as a Factor in Creating a Desire for an Agricultural Education." Addresses on Institute work were made by Mr. W. W. Miller, secretary of the Ohio Agricultural Bureau, G. H. McKerron of Wisconsin, A. L. Martin of Pennsylvania, E. B. Voorhees of New Jersey, C. C. Creelman of Ontario, Major J. G. Lee of Louisiana and S. L. Patterson of North Carolina.

Perhaps the most interesting portions of the sessions were addresses made by the various officials of the Department of Agriculture. Dr. A. C. True of the office of experiment stations spoke of farming conditions in our island possessions. In reference to the Philippines, Dr. True said the plans for the new bureau of agriculture, which will be established there, include not only Government stations, but provision has also been made for farmers' institutes in the islands, and he predicts that a splendid system will be in operation among the farmers there within a few years.

Mr. W. J. Spillman read a paper on "The Farmers Institute Worker—Subject and Methods," in which he urged the importance of having persons with practical ideas on farming matters to conduct the institute meetings.

Dr. True also read a paper on "Farmers Institute as a medium for developing the natural interests and relations of farmers and the United States Department of Agriculture." He urged that the Farmers Institute workers keep in close touch with the Department of Agriculture, and become interested in it, so that when matters before Congress affecting the Department, the farmers can be informed, and through them Congress will be assisted in deciding on appropriate legislation. He urged more thorough organization, and suggested that an agency should be established in the Department of Agriculture to promote Farmers' Institute work.

At the close of Dr. True's paper, a resolution was passed to the effect that the association express to the Secretary of Agriculture its favor in the appointment by the department of an agent to co-operate with the Farmers' Institute work.

Secretary Wilson delivered an address in which he dwelt on the necessity of our agricultural colleges turning out farmers, the same as our schools turn out doctors, lawyers, dentists or preachers. He said the Department of Agriculture is handicapped in its employment of able scientists through the lack of proper education in our agricultural colleges.

The secretary spoke of various experiments which were successfully conducted by the department, resulting in the saving of millions of dollars to the country. As one of these he exhibited facts and figures wherein \$8,000,000 a year for imported masonries is now being expended at home. "Congress," he said, "is doing much to promote the study of agriculture, but much of the money given to assist agricultural schools is used on other subjects. The time is not distant when it will be possible to secure instructors who are prepared to teach some of the things farmers want to study."

Considerable stir was created during the closing session over the introduction of a resolution condemning the distribution of seeds by the Department of Agriculture, but after much discussion the resolution was withdrawn.

The next meeting will be held in the summer of 1903 at Toronto, Canada.

The officers elected for the coming year are: President, Prof. W. C. Latta of Lafayette, Ind.; Vice-president, Major J. G. Lee of Baton Rouge, La.; Secretary-Treasurer, Mr. G. C. Creelman, Toronto, Canada; Executive Committee, S. L. Patterson, North Carolina, A. B. Hostetter, Illinois, and A. L. Martin, Pennsylvania.

The half-mile-track record of Iowa is 3.10, and was made by the black gelding William Mac, at Waterloo, that State, on the 10th inst., in the second heat of a race which he won. William Mac is nine years old this season. His record is 2.03, made in 1899. He was got by Aleymont, whose sire was Alcyone (2.27), and whose dam was Katie Jackson (2.23), by Almont 33.

Northern New England's Beautiful Seacoast.

From the time when the Mayflower first weighed anchor in a New England port, and the staid old Puritans set foot upon her shores, the popularity of New England's coast as a summer resort was assured.

The charms of New England's seacoast are so diversified, the scenery so wild and beautiful, and the climatic conditions so favorable, that one is as a loss where to start in commencing about this favorite territory.

The historic and picturesque portions have also quite an important place in the attractions of New England's seacoast, and many an old legend or poem is recalled at the glimpse of a Cape Ann fisherman, the Marblehead cliffs or the famous old city of Salem.

Aside from the natural beauty and picturesque spots on the Atlantic coast, this portion has other attributes which are peculiarly its own. New England, namely, the delightful coasts which pervade this section even during the hottest months.

Thus, when one considers the many advantages which northern New England has over the rest of the country, it is no wonder she is looked upon as the premier vacation coast. The hotels are the finest in the country, and the patronage comprises the wealthiest and best class of the American people.

The train connections along the coast from Boston are admirable, and the additional and improved train service between Bar Harbor and coast of Maine points and New York city has greatly added to the comfort of the visitors from that section.

You may travel abroad, or search throughout the country for a more delightful watering-place, but your quest will be in vain for in all this world for comfort, pleasure and beauty, the length of seacoast between the rocky peaks of Marblehead and the towering mountain peaks which stand guard over the historic isle of Mount Desert and its summer paradise, Bar Harbor, is without an equal.

The descriptive pamphlet, "All Along Shore," which will prove useful in selecting a seaside resort, will be mailed by the Passenger Department of the Maine Railroad, Boston, for a two-cent stamp. "New England Seashore" and the title of a portfolio made up of thirty half-tone reproductions of photographs illustrating coast views, and will be mailed upon receipt of six cents in stamps.

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It is the cheapest investment you can make, as it has no patent internal gear and is made of the finest iron.

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A little factory for only \$6.00. For use on an ordinary fruit stove. No extra expense for fuel. Easily operated. Evaporates apples, pears, peaches, all kinds of small fruits, etc. in various ways, and makes a delicious fruit candy. Agents wanted. Write for circular. Moseley & Pritchard Mfg. Co., Chicago, Iowa.

Crimson clover was first introduced in this country several years ago by the late Dr. Hardin, a florist of Delaware. Being a great lover of flowers, and while traveling in Europe in search of rare plants for his gardens, he was attracted to this plant by its great beauty, which is not exceeded by the finest plant that adorns field or garden. He secured some seed and sowed a bed in his garden. Every one admired its great beauty, but years elapsed before farmers awoke to its value as a forage plant. Crimson clover is now successfully grown in every State in the Union. It is valuable for hay, yields two to three tons per acre of the finest quality, is valuable for seed, yields ten to fifteen bushels per acre, and is the most valuable of all clovers as a soil improver or fertilizer plant. If seed is sown in July or August it makes excellent fall and winter pasture for all kinds of stock. Crimson clover is an annual, and must be sown in July or August. Early in May the flowers appear and the field changes from a deep green to a brilliant crimson, making a sight to behold and to remember.

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RADWAY'S READY RELIEF

RADWAY'S READY RELIEF has stood unrivaled before the public for over fifty years and quickly cures all Sprains, Bruises, Sore Muscles, Cramps, Burns, Scalds, Mosquito Bites, Backaches, Headaches, Toothache, Rheumatism, Neuralgia, Internally.

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Dysentery, Diarrhea, Cholera Morbus.

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There is not a remedial agent in the world that will cure Fever and Ague and other Malarious, Bilious and other fevers, aided by RADWAY'S READY RELIEF. Fifty cents per bottle. Sold by druggists.

RADWAY & CO., 55 Elm St., New York

Poetry.

SONGS UNSUNG.

There are the songs that mother sings,
When the heart and life are young,
But the dearest songs the world may know,
Are those that are never sung.

They triumph over joy or tears,
And live through swiftly passing years,
With sweet, yet deathless strain.

They hold of God's eternal love,
A measure deep and strong,
And join the soul to realms above,
In grand, unspoken song.

J. B. M. WRIGHT.

THE OLD HAND ORGAN.

The old hand organ in the street
Has not the gaudy gold and gilt
The new ones have—but, oh, the sweet
Old times it plays with limpid lilt!

The harp that once thronged Tara's halls,
"Jim Crow" and "Annie Laurie," too—
And, answering its bugle calls,
The old times rise for me and you.

"Then you'll remember me," it plays—
And straight our memories go back
Through all the dead years' mellow haze,
With frequent pause along the track.

And then we see the grass-grown streets,
The orchards gleaming in the sun,
Where crooning bees seek out the sweets
And shadows o'er the grasses run.

We see the flash of merry eyes,
We see the gleam of old-time smiles;
And, ere the old-time music dies away,
We live again the old-time whiles.

We walk the pathway in the lane,
And day-dreams as we used to then,
For on the rippling old refrain
The old times come to life again.

Play! old hand-organ in the street!
Play every song we used to sing,
And let our hearts in cadence beat
With each glad memory they bring.

Play in your halting, careless way,
The fine old tunes that softly tell
Of every day made happy day,
In those old times we love so well.

—Baltimore American.

APART.

Had it been mine to choose, I should have prayed
"Let me go forth, my Lord, and meet the brunt
Of fighting for Thy foemen, fierce arrayed,
Of fighting or falling at the battle's front."

Comfort me not with ease, I should have said,
"On peaceful days, lest sword and spear grow blunt;
Give me to share the fight my brothers share;
Their wounds, their want, their triumph, their despair."

God chose instead, and set mine eager feet
Close within walls I cannot pass at will;
The noise of shouting where his armies meet
Drifts to me faint from yonder far-off hill.

My days are silent; pastures green and sweet
Beside me spread, and healing waters still.
Alas, my brothers' wars, I feel of heart
Or weak of hand, so to be set apart?

Yet in the silence here the selfsame foe
Creeps in upon me still through sun and shade.
He fronts me sudden for the overthrow,
He follows on my steps with poisoned blade.

The weary watch by day and night I know,
The wounds, the thirst, the looking forth for aid,
So, my God, dearest, grant my prayer;
Set apart, my brothers' lot I bear.

—Mabel Earle, in The Outlook.

THE PING-PONG LOVER.

It is not mine to serve with stately grace
The ball into my lady's face,
To win no game with skill to me is given,
I will not play at all unless I am driven.

It is not mine,
It is not mine to send with easy grace
The ball to land bounding
The ball to land bounding in my lady's face.

No mine in endless riles to reel
The thousand artless strokes she knows so well;
No mine my suit victoriously to press
(My suit does this when 'tis in a mess!)

No mine with futile
No mine with futile racket to repel
The timely service,
The timely service that I know too well.

By mine it is to scaramble in her train,
To search in darkened corners to maintain,
To humiliate to fetch with deference,
To call the score, off "love," with look intense;

The careful liquid
The stances liquid fetch with reverence,
My faithful worship,
My faithful worship thus to evidence.

—London Punch.

THE PEACEFUL HEART.

Some hearts are haunts of peace,
And some are haunts of strife;
In some all wars must cease,
In some all wars must rife.

Oh, grant a heart to me
Where holy peace may dwell;
And let my heart be true
To War's fearful idol.

—Ella Fuller Maitland.

Ladies Manicure and Complexion Soap.

WHAT IS IN A NAME?

FOR A NAME FOR THIS FINEST TOILET
MANICURE SOAP WITH A PINK OF PINK
20 CENT SOAP MANICURE SOAP SUCCESS
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Miscellaneous.

Guiltless Thieves.

Jolly Jonathan Garay was a pillar of society. Having wealth and position, he would wed only nobility. Adela was the daughter of an old imperialist family, and as sweet as a pomegranate, with all her charms ready to burst blushing, you as burst the charms of that sweet fruit. She was only eighteen.

"Her laugh," mused Jonathan, sunk in a luscious dream in the governor's must room, "is like the quick, lavish pouring out of a bagful of gold."

They were married in the Guadalajara Cathedral with magnificent pomp, and into the arms of Jonathan, Adela, his wife, Tita, and his stark-naked son, Caesar, aged five. Jonathan was also a pillar of society. He wore two garments, white trousers, white shirt, also sandals. When it rained he rolled his trousers to his hips, donned the rain-coat made of palm leaves, whose split through mud, Jonathan was a monstrous, ruffled fowl—but still a pillar. His hut was thatched, the walls of it being largely composed of coral stalks. It stood surrounded by a dark grove of mango trees. Just in front of the hut the lake's waters ran seething up a stretch of sand.

And why was Jonathan a pillar? Because he caught more fish than any other. Because he owned three boats. Because he was exceedingly dignified and walked in stately manner to the church, even when a fowl. Because when he became drunk he became more stately, and if, while drunk, he hit Tita with a pot, he did it in a way so subtly dignified. He was known to the most of the most honest men that lived. And, somewhere, in a hole with a rock on it, he had \$5 buried. If these things did not make Jonathan a pillar in his own society, neither did anything make Jonathan one in Guadalajara.

Dainty Adela, wearing all colors and changing them several times a day, sent rippling laughter all along the sunny shore, and was like the flash from a prism. She and Jonathan stayed at the new hotel, and were the happiest also the most, pleasingly soft of lovers still. They ran races dressed in rich clothes, out the wriggling lake that follows the shore amid fishing huts and rocky and braying asses. His silk hat flew off as he lured, red and hallooing with joy, over the earth, and she stepped in it and dashed it. Then they sat down under a sapote tree and laughed till the tears ran down their cheeks. There was nothing on earth to do but laugh and kiss and run wild.

Thus they came to Jonathan's mango grove. She would go in. Jonathan, who swore he had never known life before, caught her up and swung her, tossed and rumbled, right over the wall. Then he heaved himself over. Inside it was a good place to kiss. They did it and then she ran on, a red and blue flame in shadows. Thus they came through to the shore, the seething water, Caesar, and Jonathan mending his net.

"Oh, Jonathan!" burst forth she, "your home is heaven! Jonathan! do it for me!" He halted and caught her in his arms, where she felt flushed. Which little pleasure, under the hanging lobes of the mangos, Jonathan gazed on with that stately unmovedness which does ever exalt you Aztec to the loneliness of the gods, "You wouldn't live in the hut, little heart?" laughed Jonathan.

"Of course not! You'd build a villa, here—here, right in this mango grove!" The idea intoxicated Jonathan. "How much will you take, Jonathan?" "I won't sell," said he, wisely. The waves were running over his feet. His wife, Tita, came out of the hut with the masked coral-dough in her hand.

"Ask him how much he'll give!" whispered she, provoked at Jonathan.

"Well, well," said he in a hurry, not to lose credit with Tita. "I'd take one hundred thousand dollars."

Numbers and Capala fishers! The two ideas cannot be connected. Jonathan had no more money—had fallen off Jonathan. And why? Simply because he thought it was a joke. Two alimuds of dollars were beyond the imagination of man. It was to be doubted if there was that much money in the whole earth. He would not have entered the hut if he had known that he was to be so rich. It is not difficult to offer some Indians so much money that they will not take it.

They heard Tita sniff inside the hut. Jonathan went on mending, entirely unmoved. Caesar rolled in the sand. That offer—was though one had said: "I'll give you so many pecks of money"—had fallen off Jonathan. And why? Simply because he thought it was a joke. Two alimuds of dollars were beyond the imagination of man. It was to be doubted if there was that much money in the whole earth. He would not have entered the hut if he had known that he was to be so rich. It is not difficult to offer some Indians so much money that they will not take it.

Seeing this failure, Jonathan recalled the sums he knew to have been paid for single lots (the prices had gone to the sky) of the lake, for \$25, the immense grove, and said: "I'll give you \$2000."

Jonathan, with a giant look, went in to consult his wife. Good fortune upsets things. Two thousand dollars, though not understood, sounded just enough for him not to take it as a joke. The affair pained him, though. He and Tita whispered incoherently, agitated, and without any sense at all. They became angry at each other, and suffered, and stared gaudily. Presumably Jonathan's head was poked forth and saw Adela stretching up on tip-toe with her lips out, trying to kiss Jonathan while he was erect. Jonathan was roaring.

"But where would we live?" cried Jonathan. "Why—buy a lot on the edge of the lake, for \$25. I'll do it for you. I'll make you a lane to go to the lake by."

"I'll have to do it," he said.

Jonathan went back. Presumably he came out, sedate as always, but somehow sorry. "O, sweet old Jonathan!" roared Adela, capering. "I'll bring you the money myself! Saturday afternoon. Ta-ta—goodbye, Tita—have something ready to put the money in at four o'clock."

"But say!" bawled Jonathan: "It's got to be all silver—they won't take bills."

To this harmless prejudice Jonathan agreed and went away. It was only the ignorant who would not take bills; but, a prejudice once afloat, you can catch by it or be caught by it.

On Saturday afternoon Adela was filled with a larksome spirit, and still bent on taking the money herself. She wished to see Jonathan's eyes bulge out, said she, for she knew he did not understand. Along the wriggling lake out of town, therefore, she walked, singing, by the side of her silver-laden mule.

In the hut in the mango grove Jonathan, Tita and Caesar waited, depressed. Change is an abominable thing. Why will misfortune force good fortune on one? Here was an upheaval, and here he was a beggar. To remain—just to remain, that is the best. No matter what one remains. But Jonathan wore the air of a pillar of society.

"What shall we wrap it in?" said he to Tita. "This handkerchief, I suppose," said she.

People usually put money in a handkerchief. To say that it was likely to overflow would be a dull, sorry jest, too silly even to be laughable—that is, if the handkerchief is especially large. The armed escort followed Adela over the wall and then took the mule around to a distant opening.

"Jonathan!" called she, cheerily. "Come in," said Jonathan. She did so. On the eastern floor were squatted, in a solemn triangle, Jonathan, Tita and Caesar, round a spread-out handkerchief. "Pour it here," said Jonathan, wearily. She danced out, bubbling vessel of fun that she was, fun all spilling. Two men gazed at the bag, had it off the mule's back and brought it in, she hovering after. The servants turned the bag upside down, and poured two thousand silver dollars on the handkerchief. The cloth was lost to view. The flood ran all over the bare feet of Jonathan and his family. Those who sat gazed at it; there was no word from them. After a long while, Adela, wishing to hold that scene forever unspooled in her memory, ran away. She said afterward that the sight of their faces exceeded all her dreams, faced still, showing only that

curious Aztec consciousness which the unbelievable surprise had gone so infinitely beyond.

She and the escort and the mule went off. The thing was, of course, easier to Caesar, who presciently played with dollars, but a hush was on his parents. A wary and knowing look, a profound caution, like that of a thief, was on his father's face. They waited till, after half an hour, they were sure that all was silent, sure that no one was stirring under or running back. Over the lake the red of sunset fell; a dove mourned. The evening waves ran long and languid on the sand. At last Jonathan whispered: "I knew she was a fool."

"Be awful still," Tita whispered, in answer. "Don't Jonathan was crazy when he left it to her. Antrifion, how long do you think it will be before they find it out?"

"They might find out any time," he said, craning his neck to peer through a crack; "Tita—we could live forever, rich, on this, if we got it away."

"S-s-s! How much do you suppose there is, Antrifion?"

"There must be a hundred five million," whispered he, scared, but wise. She dared to gather up a double handful. "Ours would have been about this much, wouldn't it, Antrifion?"

"A little more," said he, with superiority. "How could we make such a mistake?" muttered Tita, wild with marveling.

"I knew she was a fool," said he; "Tita—he looked ashamed—we could get it away in a boat and bury it."

He had always been an upholder of all that is right, that this was a mighty thing to say. But then, no one expects any man on earth to stand against temptations absolutely supernatural. He was relieved that without shame Tita held the view.

"If we could only do it before they find out and come back," cried she, all trembling. "We can't stir out till it's dark."

They sat, not daring to move, till night came. "Come on," whispered he in her ear. She grasped at his hand, needing to feel it, that the knowledge of their actually being criminals, engaged in a vast crime, more the more easily borne for a touch of his fingers. For night made her not less willing, but less brave. He slipped out and brought his masked canoe to a point near the house. He slipped in again, his eyes having peered round in darkness, his ear having heard every faint sound. He was terrified, a changed and haunted man. Caesar was asleep. They carried the money, for \$20 at a time, waded into the lake, and put it in the canoe. They were so scared that they could hardly do it, and Tita dropped one handful in the lake, and sobbed hysterically. The night was dark as silk. At length came Jonathan Antrifion with the last lot. Tita was in the stern to take it. His fear created a noise in his ears, a tramp of feet, he thought. They have come! They have found it out! He fell into the stern, and the money clattered to the boards. Unsteady with fright, he heaved the anchor and pushed the vessel off.

"But Caesar!" she wailed. "Curse Caesar!" roared he, blasphemous, straining on the pole. "I'll speak back and get him."

Once becoming a criminal he was not going to do anything by halves. Nothing could harm Caesar—the money—the money was the thing to be looked after now! He hoisted a sail; the shore was disappearing. The money was in the stern, only a little cloud. The noise had all been in his imagination, and Caesar slept in the midst of an abandoned silence.

An hour passed. Jonathan was grimly heading for the opposite shore, eight miles away. But Tita hung herself down on the money and wept. The wind changed, and the lake grew rough; it became apparent to Jonathan that he could not reach the other shore. So, becoming desperate he turned toward Scorpion Island, and there, about midnight, landed.

For an hour, while Tita moaned on the shore, he labored frantically to get the money out. They had yet a long time of darkness in which to lie on the ground and think. It was then that everything fell to pieces in their minds. Day came; the sun shone. Noon came. Now the afternoon wore on, and there had been not a breath of wind to take them anywhere all day. They stared, hungrily, at Chapala's distant towers. They had brought a few tortillas, but these were all gone, and they had a very empty and sad feeling. But when they arrived at nine o'clock, the hut was empty.

At ten a woman moaning and a man staggering under a great sack came along the lane to the little plaza. They beat upon the door of the jeff, and the door opened.

"Caesar!" wailed she.

"Oh—why, Tita! See here, man, your boy's lost you. Where have you been?" The mother broke in. There on the floor, in a corner, the first dug into his eyes—glazed with tears, his face, forlorn, exhausted, sound asleep; and Tita clutched him up.

"S-s-s!" said Jonathan, all his old steeliness come back, his face solemn and grand. "I come to confess, there it is." He pointed to the bag.

"What?" said the jeff.

"I stole that money from Don Jonathan. My conscience has brought me back."

This was new to the jeff. He shrugged his shoulders. Well, said he, have to put Adtrifion in jail; and in the morning they'd put Jonathan. He was sorry, he was, that so good a man had gone astray. He'd put the money in the safe—it would go in. Tita could sleep on the corner with Caesar, and when Jonathan was wakened gave himself up and went away to jail.

In the morning Jonathan and blithe Adela were found frolicking all along the beach. They came to the jeff's office, and Jonathan, prisoner, was just about to be taken to jail. "He says he stole this from you, Don Jonathan," said the jeff; "I've counted it. It's nearly \$2000."

Antrifion started violently, and relapsed into his stern grandeur. "I paid it to him!" cried Adela, skipping and entranced.

Now, all the wisest heads in town came together for the express purpose of convincing Jonathan that the money was his. That argument was intricate, sober and stern, and was a long, long time of dumb staring Antrifion signed. Well, he'd take the money, but he didn't believe it—Charles Fleming Embree, in San Francisco Argonaut.

Popular Science.

The stick insect of Borneo, the largest insect known, is sometimes thirteen inches long. It is wingless, but some species of stick insects have beautiful colored wings that fold like fans.

Defoliated cigars have been rejected as impure. By the process of distillation of the olefin and other poisons are made non-volatile by a solution of tannic acid and a decoction of wild marjoram restores the perfume. Physiological tests of this treated tobacco, which retains its nicotine with scarcely any loss, have given 34.4 percent of nicotine, as against 34.4 percent of the untreated tobacco.

Last year the Germans produced 1,500,000 tons of raw sugar, representing 13 percent of the beet root crushed, which was an increase since 1840 from eight thousand tons of product as 52 percent of the material used. The dyeing industry earned \$3,000,000 last year, against \$6,000,000 in 1874, notwithstanding diminished prices and increased wages. Artificial indigo now employs over six thousand men, including 148 scientific chemists, although since only about thirty-five years ago less than forty men. In 1898 Germany employed fourteen thousand persons in making scientific instruments, the exports being three times those of 1888. These are examples of the results of the scientific training in the land of its greatest development.

Youth's Department.

THE DARK.

The dark came out of his dim retreat
Where shadows hemlock spread;
No sound he made with his gliding feet
As he passed along through the village street
Where the trembling twilight fled.

And the children, caught in the edge of night,
Sped home with a thrill of fear;
"The Dark is coming!" they cried in fright,
And scampered away to the cottage light
That sent them a ray of cheer.

And the Dark passed on, and he gently stepped—
His shoes were soft as snow;
As the three people and flowers slept,
The cool, thick plumes from his helmet swept
Far over the resting town.

The children slumbered till dawn grew red,
And the Dark kept watch till day;
He kissed them all, as they lay in bed,
And the curl of a single head
Did he harm ere he stole away.

—Hattie Whitney, in Youth's Companion.

The Rummage Sale.

"What can we do that's new?"
"There's nothing new to do."
"We've had fairs, and festivals, and loan exhibitions, and Mrs. Jarley, and spelling school—"

"There's one thing we haven't had."
"What's that?"
"A rummage sale."

"Haven't you heard? They've had them in a great many places. They begin by going around and asking everybody to give them everything they don't want—"

"Valuable gifts!"
"Don't interrupt, Mary. The presumption is that some one else may want them. And I was about to add, we don't mean only old stuff, but gives people a chance to give things which really amount to something. Most people have something in the way of trash that they might easily spare, that would suit the fancy of some one else."

"What a blessed clearing out it might be for some houses. Bric-a-brac, for instance."
"Yes, the only horror of that would be that it would be simply moving the bric-a-brac horror from one place to another."
"All are expected to send in their half-worn clothes and send them clean and repaired. Thus you see, it becomes a real help to poor people, for many garments far better than they could buy at the stores are sent in."

The "Ladies Aid" said Margaret, "and it has the merit of novelty, or, no. Let's do it."
"It will be great fun."

The rummage sale was carried by acclamation, the result being an advertisement soon afterward in morning paper.

The "Ladies Aid" society of the Fifth-street Church will hold a rummage sale at Hall's vacant store on date of Nov. 21—day and evening. Gifts of all kinds are earnestly solicited. Clothing new and old. Merchandise and groceries of any description. China, furniture, books, fancy work, objects to raise a fund for aiding for the winter some poor families who need have come under the notice of the society. Send things to the store on the 20th."

"That looks comprehensive," said Lou, reading it with approval. "Now, if only it will stir people."

It appeared to. There was a rummage rumble through the whole of the brisk town, which, too large to be satisfied with "doings," and too small to want much in the way of public entertainment, grasped at anything which would reach their reach in the way of novelty. Attics and storerooms were ransacked for stowaways which had lain for a long time.

"It's a sort of a rummage sale to have a chance of getting rid of things a little too good to throw away, not quite good enough to use and that you don't quite know how to give to."

"Things that have lain aside for a time to use them."

"Things, perhaps, that have been given you that you don't need—good things."

The Endeavors supplemented the advertisement by widespread urgings and suggestions.

"I wonder if I had better give this coat."

Mrs. Plummer held up for her own examination a heavy coat, well lined and wadded, bound with cheap, well-worn fur.

"It's a nice coat." The remark as made by Mrs. Plummer's overgrown maid of all work, Mary Jane Garvey, who, being the only person present, naturally concluded that she was expected to reply.

"I've had it eight years," went on Mrs. Plummer. "Wore it steady for three, and second best for two more. Since then I've only worn it special times. It ain't much use to me except when I want to look smart. But when I do want it, I want it real bad. Still, when there's folks that don't have warm things."

"Plenty such," said Mary Jane, coming to look with interest at the coat. She felt its weight and she said to herself, "I wonder if I do want it, I want it real bad. Still, when there's folks that don't have warm things."

"Yes, yes, I know what you're thinking of," said Mrs. Plummer, kindly. "But I don't want you to lay that against yourself, Mary Jane. Might be careless in your own thought if I never could understand why it shouldn't be 'a been dish' in some one else. You know I never thought of it. No, did Mrs. Gage."

But some one else might. Mary Jane resumed her work with an old burden revived in her mind. Very distinctly she went over the circumstances of her own last winter given by the "Ladies Aid" at the house of one of its members. "Ladies Aid" at the house of one of its members. "Ladies Aid" at the house of one of its members. "Ladies Aid" at the house of one of its members.

He herself, delighted at being permitted to be "in it," had laid plates and washed dishes until her limbs ached. How toward the last Mrs. Plummer had sent her to the dressing-room to see if the pocket of Mrs. Gage's coat a pocket book containing \$5 in small bills. How she had searched in vain for it, at length coming with a scared face to tell of her ill-success. How Mrs. Plummer had said: "Why, Mary Jane, I put it there myself an hour ago for a payment." Mrs. Gage was to make for the society, but now the person's here and we can pay now."

The remainder of the sorrowful story she could never recall without keenest painful remembrance of a fancy that some of the ladies had "looked strange" at her.

No one really believed anything against Mary Jane, but no one could have realized the weight of misery endured by the poor girl.

Mrs. Plummer went on with her search, her heart enlarged with the blessed exercise of it. When things were in doubt the charity scale was more and more sure of going down.

"Now, how am I going to get them there?" with a satisfied gaze at a big chair heaped with her gifts.

"Peter'll take 'em," said Mary Jane. "He'll be glad to do anything to help. So'll I."

"You can, Mary Jane. You can wrap all these things up."

When Peter came with the milk the next morning, Mary Jane watched him as he came into sight, her heart warming as she noticed the weight he carried.

"Peter's a real good, industrious boy." She turned to her work, but Peter tugged on. With each hand he carried a short pole on which was balanced four quart pails of milk.

Peter was her brother, the two being the only children of a widow who was doing her hard-working best to "bring 'em up decent."

They lived half a mile out of town and every morning Peter delivered milk to customers. At first it had been one pail in each hand, then one slung in each elbow and one in each hand. Now he carried eight pails.

"Tuggin' work, ain't it?" she said, cheerily, as Peter set down his pails and limbered his elbows.

"Yes, but gets lighter and lighter as I go on. Two pails emptied 'a' ready and now another. But I tell you what, Mary Jane, I've got a secret."

"Tell me, Peter."

"You won't let on to a soul?"

"Not one."

"I ain't a-goin' to work so hard next winter," said Peter.

"You're not?" said Mary Jane, a little disappointed. "Is that the secret?"

"No. Only the beginnin' of it. Listen now. I'm going to buy a push cart to carry my milk in."

"Now, Peter?" Mary Jane regarded him with admiring wonder.

"Sure's you live." Peter strutted about the kitchen, holding his head high. "Mary Jane," he went on, impressively, "the day'll come when you'll see me drivin' a horse and wagon with my milk."

But, Peter, how are you goin' to get it—the push cart, I mean?

"I'm a-savin' up for it. It'll cost \$6, and I've got \$3.50 a' ready."

"O, Peter!" Mary Jane's face beamed with loving sympathy, "you ought to have it soon, say, Peter, I've got \$1.25 and you shall have that."

"I can earn my own money without taking a girl's," said Peter, with fine spirit.

There were few who did not give to the rummage sale, fewer still who did not go to it. Mary Jane and Peter were there, a little subdued in spirit because their mother was not able to come. Winter had set in early and she had the rheumatism. The weather and the rheumatism were the causes for her absence assigned by her son and daughter, but both knew that a very heavy reason still lay behind. She had no wrap sufficiently warm for severe weather.

Givers and buyers walked through the crowded building with wondering eyes. Who would have imagined that the little town held so much that it could give away? Rather, who would have guessed that so many hearts would be moved by love of the Lord and his needy ones to give so much?

Walking among the rows of clothing of all sorts and descriptions Peter's eye was caught by the heavy coat given by Mrs. Plummer. Caught and held, for in the boy's loving heart was at once found a picture of a frail form wrapped in its warm folds, well shielded from the cruel cold. He felt its thickness, softly stroked the cheap fur lining, up the front to the new facings which Mrs. Plummer had put in two years ago, and it had scarcely been worn since. Peter looked at the price label—\$4.50, then passed on with a dizzying rush of new thoughts.

In his mind's eye was a green cart with yellow wheels, that cost cost \$40 when it was new. He glanced back. Many people were looking at the clothing—that coat might be sold any minute. Everybody must be wanting it. With excited movements he sought out his sister.

"Mary Jane, come! This way. Say—pointing out the coat, 'I want to buy that for mother.'"

"You, Peter! Why, how could you?"

"I couldn't 'less you help me out. I'll give my coat money for it. You'll give what you've got."

Mary Jane looked as if cared by the magnitude, the magnificence of the idea, as indeed she was. Then the cloud of amazement and doubt began to break away on her face, a look of boyish blarney, slipped on the big coat, burying himself in its ample folds as the fur collar surrounded his head, plunging his hands deep down into the pockets.

"There's somethin' here," he said, pulling out with one hand a crumpled envelope.

"Here, Mrs. Plummer," said Lou, calling her from a little distance, as Peter laid his find in the young girl's hands. "This must be yours—it was found in your pocket."

Mrs. Plummer took the envelope, examining it at first quietly, then excitedly.

"O—It's it, it's it! To think I should never 'a thought of this! Anybody should ever 'a thought—"

"O—Mary Jane, Mary Jane!"

"What's it? Who ever thought? Who ever thought?"

"Look! Look!" Mrs. Plummer rapidly shuffled over to small bills, "here 't is."

"What?"

"The \$5 that was lost last winter."

"You said you put it in my coat pocket," said Mrs. Gage.

"I thought so. I went up in the hall dark and you were the most like one, so I must 'a slipped into my pocket instead of yours, and it went down this rip in the lining. And I never wore the coat since. Mary Jane—laying a trembling hand on the girl's shoulder, "I don't know how I lost it, even if it's to you, but you know I never laid it against you."

"None of us did." The chorus of kindly voices deepened the flush of confusion on Mary Jane's cheeks.

"No, no," she murmured, confusedly, "You only thought 't was wonderful mysterious. Anybody would."

Mrs. Plummer conferred for a few moments with the members of the "Ladies Aid," then turned to Peter.

"Peter, the money that was lost was made up long ago, and of course this belongs to you."

The Horse.

Dover (N. H.) Meeting.

The opening meeting of the season at Granite State Park, Dover, N. H., was held last week. Good weather favored the management on Tuesday, the first day of the meeting, and the three races carded afforded good sport for a fair-sized crowd of spectators. The three races were sandwiched and were started at one-thirty, and by five o'clock the races were over and eleven heats decided.

The fields were light in two of the events, as there were only five starters in the 2:24 trot and four in the 2:12 pace.

Debut, a winner at Readville, was the public choice for the 2:24 trot. He was more than an even-money favorite for this race, selling at \$50 to \$40 for the field, and he won it handily after losing the first heat to Andrew Moore in a close and the only exciting finish of the race. The two stepped lapped, Debut at the pole inside the short distance, but two lengths from the wire Debut went to a break, and, though he finished ahead of Moore, the judges very properly set him back and awarded the heat to Moore.

Debut had things all his own way after that, as he was steady, while Moore broke badly, and there was nothing else in the field capable of giving him trouble.

Achuff, owner of Andrew Moore, tried his hand behind Moore in the third and fourth heats with no better results, and in the last heat he caught the flag.

Carthage Girl was barred in the betting on the 2:12 pace. She won it right off the reel. The issue was never in doubt, and she didn't have to step within three seconds of her Readville record. Ned Wilkes made his first start of the season in this race, and got second money.

Golden pulled off a good race with the Potential gelding Silver Glow, owned by Charles Sanders, a member of the Gentlemen's Driving Club of Boston, and who purchased the gelding last season. This was in the 2:21 trot, for which Mrs. Brown, another Readville winner, who took a mark there the previous week of 2:12, was thought good enough to win.

Nine horses turned for the world in this event. Mrs. Brown sold for \$50, June \$9, Allabrieve \$7 and the field \$18. The three first heats were close and the horses well bunched throughout the mile.

In the opening heat Mrs. Brown led inside the flag, but when Silver Glow collared her she went to a break, and Silver Glow landed it with a new mark of 2:18. His previous record was 2:21. Silver King was a close second and Allabrieve third.

James took Mrs. Brown out in front early in the second mile and got the pole going into the turn. Silver Glow got hemmed in, and it was simply impossible for him to get through or out, and Golden could only sit still and see another horse get the heat.

Mrs. Brown showed the way to the stretch with Allabrieve at her wheel, but Author, after going a long mile, came through on the outside, and in a close finish with half a dozen of them bunched at the wire won from Allabrieve, who beat Mrs. Brown for the place. This heat was in 2:16, a new record for her.

Golden had Silver Glow well up to the front going off the third heat, took the pole on the turn and kept it to the wire.

James made a stiff bid with Mrs. Brown for the fourth, and what proved the deciding heat. He stepped up alongside Silver Glow going into the first turn, and they raced like a double team well out in front to the upper turn, where Mrs. Brown dropped back a length. James tried hard to rally her in the stretch, but she couldn't respond, and was beaten for the place by Allabrieve. Silver Glow came to the wire strong and without urging in 2:16, within a fraction of a second of the fastest heat of the race.

SUMMARIES.
Granite State Park, Dover, N. H., July 8, 1902—2:24 trot. Purse, \$500.
Debut, b. h. by Dictator, dam, Samovar, by King Reel, m. (Demarest) 1 1 1
Rapid Wick, b. g. by Belmont (Brimley) 3 2 2
Allabrieve, b. m. by Almont (Brimley) 3 2 2
Ellen Tree, d. m. by Prince Eugene (Bliss) 4 5 4
Andrew Moore, b. m. by Almont (Brimley) 4 5 4
(Grady and Achuff) 1 4 5
Time, 2:18, 2:18, 2:17, 2:18.

Same day—2:12 pace. Purse, \$500.
Carthage Girl, b. m. by Potential, dam, Golda, by Amber (Merrill) 1 1 1
Ned Wilkes, ch. g. by Wilkes (Switzer) 2 2 2
Special Roy, ch. g. by Goldwater (Timothy) 3 4 4
Gentry, b. g. by William C. P. (McQuinton) 4 4 3
Time, 2:13, 2:13, 2:14.

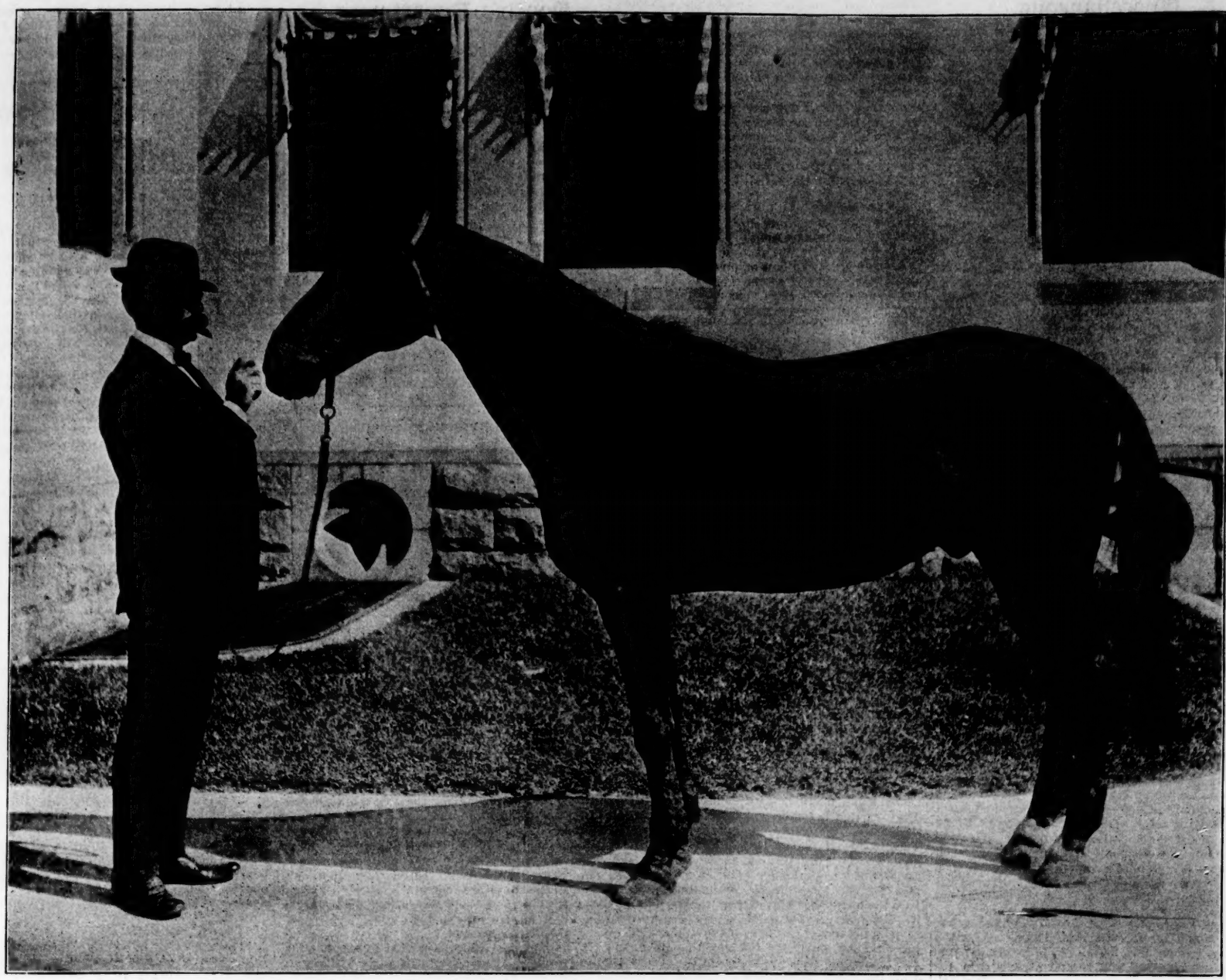
Same day—2:21 trot. Purse, \$500.
Silver Glow, b. g. by Potential, dam, Buda, by Tramp (Golden) 1 1 1
Author, b. m. by Autograph (Devlin) 1 1 1
Allabrieve, b. g. by Elyria (L. McDonald) 3 2 2
Silver King, gr. g. by Deenwood (Merrill) 4 5 4
June, b. m. by Broadway (Blanchard) 7 5 5
Mrs. Brown, b. m. by Hinder Wilkes (James) 8 4 8
Easter, b. m. by Wilkes (Johnson) 6 5 7
Daisywood, b. m. by Astor (Kinney) 7 8 6
Rose, b. m. by Alexander (McClary) 7 8 6
Time, 2:18, 2:18, 2:17, 2:18.

Granite State Park, Dover, N. H., July 9, 1902—2:24 pace. Purse, \$500.
Lanter, b. m. by Broomfield, dam, by W. Wilkes (Palmer) 10 1 1
Curtis, ch. g. by breeding unknown (Bliss) 1 3 8
Rebe, b. m. by Edouard (Proctor) 3 2 13
Dent, E. g. by Bloomfield Wilkes (Proctor) 6 4 3 2
Johnny Wiseman, b. g. by Nelson's Wilkes (Pope) 2 6 5 4
Deacon, m. g. by Breeding unknown (Cleary) 8 13 2 5
Jessie Wilkes, b. m. by breeding unknown (Cleary) 4 5 9 6
Charlene, b. m. by Arrowwood (Cummins) 13 12 7 7
Sultana, br. m. by Prince Eugene (Ryan) 9 11 8 10
Katie Masters, b. m. by Sentinel Wilkes (Kinney) 11 10 13 15
Diamond King, b. g. by Marston (Bass) 7 10 13 15
Miser, b. g. by Lord Eldon (Douglas) 14 14 12 15
Prince William, br. g. by Oscar Wilkes (Devlin) 12 9 dr

Time, 2:17, 2:14, 2:15, 2:16.
Same day—2:15 trot. Purse, \$500.
Promise, b. g. by Silver Chimes, dam, Boda, by Stranger (Jones) 2 1 1
Gene D. br. m. by Wilkes (Switzer) 2 6 2
Lassell, b. g. by Wilkes (Switzer) 2 6 2
Alkaline, b. m. by Wilton (Wilbur) 4 3 4 6
Judge at aw, br. g. by Heir-at-Law (Bever) 6 6 3 4
Marion Wilkes, b. m. by Hawthorne Wilkes (Kinney) 4 5 5

Time, 2:13, 2:13, 2:17, 2:14.
Same day—2:16 pace. Purse, \$500.
Joe Pointer, b. h. by Star Pointer, dam, Laura Bell, by St. Mark (McClary) 1 1 1
Jesse H. b. g. by Alphonse (Golden) 1 2 2
George L. b. h. by Cuckoo (Bower) 3 4 7
Daisy K. b. m. by El Capitan (Pope) 4 6 3 3
Jesse S. br. m. by Hat (L. M. Donald) 3 4 6
Ned Perry, b. g. by Jack Dawson (Humphreys) 5 5 4
Lucy Posey, ch. m. by Harry Posey (Kinney) 8 7 5
Mary C. ch. m. by Lord Eldon (Proctor) 7 7 5
Time, 2:14, 2:09, 2:12, 2:11.

Granite State Park, Dover, N. H., July 11, 1902—2:14 pace. Purse, \$500.
Locanda, b. h. by Alton, dam, Katharina, by Alton (Brodie) 1 1 1
Edith May, b. m. by Arrowwood (Sullivan and Walker) 2 2 5
Carl Wilkes, b. g. by Wilkes Nutwood (L. McDonald) 6 3 2
New Jersey, b. h. by Prince Eugene (Bliss) 3 2 3
Gosce, b. g. by Nutwood (Proctor) 9 7 3
Dora Highwood, b. m. by Highwood (Bever) 4 4 7
View View, m. m. by Grand View (Bower) 7 5 6
Rex, b. g. by Oungate (P. Collins) 7 5 6



THE NOTED TROTTER GUY, 2:09 3/4. OWNED BY SECRETARY W. H. GOCHER, HARTFORD, CONN.

Colleen, ch. m. by Jersey Wilkes (Cook) 5 9 9
Burnham, b. g. by Carthage (Bass) 10 dr
Henry's Girl, b. m. by Henry's Boy (Langford) 10 dr
Time, 2:11, 2:13, 2:13.

Same day—2:28 trot. Purse, \$500.
Mars, b. h. by Margrave, dam, Artless, by Neponset (Johnson) 1 1 1
Invader, b. g. by Day Bird (Devlin) 2 2 2
Jimmie Michael, b. g. by Day Bird (Devlin) 2 2 2
The Freacher, br. g. by Wilkes (Duntley) 4 3 3
Nautia, b. m. by Nutwood (Proctor) 4 3 3
Jack Brerton, gr. h. by Ansel (Kinney) 3 3 3
Majestic, b. g. by King William L. (Bass) 3 3 3
Time, 2:17, 2:18, 2:15.

Same day—2:10 pace. Purse, \$500.
Terrill S. ch. g. by Strathmore, dam, Emie, by Ajax (Lassell) 1 1 1
John T. ch. g. by Nutwood (Bower) 2 2 2
Cinch, ch. g. by Alcantara (Blanchard) 2 2 2
Diavolo, br. g. by King Turner (J. O'Neil) 3 4 3
Emma E. ch. m. by Alcantara (Lawrence) 5 4 3
Time, 2:10, 2:09, 2:09.

Granite State Park, Dover, N. H., July 12, 1902—2:18 trot. Purse, \$500.
Easter, b. g. by Mansfield Medium, dam, by Joe Pointer, b. h. by Star Pointer, dam, Laura Bell, by St. Mark (McClary) 1 1 1
Col. Wilkes, b. g. by Gail Wilkes (Thompson) 1 1 1
Son, br. m. by Lattitude (Kinney) 3 2 3
Mary C. b. m. by Warren C. (Lassell) 4 4 4
Bessie H. ch. m. by breeding unknown (Ellis) 4 4 4
My Chance, ch. h. by Vatican (Crowley) 4 4 4
Time, 2:13, 2:14, 2:14.

Same day—2:19 pace. Purse, \$500.
Joe Pointer, b. h. by Star Pointer, dam, Laura Bell, by St. Mark (McClary) 1 1 1
Olivewood, br. g. by Norwood (Hayden) 2 2 2
Barnard, b. g. by Almont (Brimley) 3 3 3
Harry Hotspur, ch. g. by Haldane (Devlin) 3 3 3
Baroness Evelyn, br. m. by Baron Wilkes (White) 4 4 4
Rex, ch. g. by Norval (Coville) 7 4 6
Russell Hardin, ch. h. by Russell Wilkes (White) 6 6 6
Coaster, b. g. by Bourbon Wilkes (Bass) 9 7 5
Daniel Webster, b. g. by Cleveland (Kidd) 10 10 10
Bethel, b. g. by Earl Boller (Proctor) 10 10 10
Blacksmith Maid, b. m. by Callisto (Birch) 10 10 10
Time, 2:13, 2:12, 2:10.

A Famous Old Trotter.

Twenty-five years ago the most noted trotting breeding establishment in the North was Stony Ford, near Goshen, N. Y. The proprietor, Mr. Charles Backman, was a wealthy gentleman, a born horseman, and noted for generous hospitality. Stony Ford Farm was established as early as 1864. The foundation stock was chiefly descendants of Mambrino, Bishop's Hambletonian and other sons of imported Messenger, together with several descendants of Seely's American Star and some of Henry Clay. Mr. Backman's main reliance, however, was on the descendants of Hambletonian, Mambrino Chief and Seely's American Star.

The band of brood mares found at Stony Ford twenty-five years ago surpassed, as a whole, both in breeding and merit, the brood mares on any other trotting breeding establishment in the world, with the possible exception of the noted Woodburn Farm in Kentucky. Mr. Backman was quick to appreciate the excellence and value of the Hambletonian-Seely's American Star combination of blood lines for producing high-class trotters. He secured all the good daughters and granddaughters of Seely's American Star that he could buy. He also had a high opinion of the daughters of Sayre's Harry Clay, and owned two of the best of them, viz., Green Mountain Maid and Hattie Wood. He bred sixteen foals from Green Mountain Maid, two of which died young. Nine of these made trotting records from 2:20 to 2:30. Another was the famous trotting sire, Electioneer. Fourteen of the sixteen were got by Messenger Duroc, son of Rysdyk's Hambletonian.

In his catalogue of 1881, Mr. Backman said of his brood mares as follows:

I have in my brood-mare collection sixteen daughters, forty-nine granddaughters and three great-granddaughters of Rysdyk's Hambletonian; six granddaughters, twenty-eight great-granddaughters and two great-great-granddaughters of Mambrino Chief; twenty-one granddaughters, nine great-granddaughters and one great-great-granddaughter of Seely's American Star; two daughters, eight granddaughters and four great-granddaughters of Sayre's Harry Clay; two granddaughters and eleven great-granddaughters of Pilot Jr. In order to produce the fastest and most enduring trotter, with one exception, it has been demonstrated by the records that he must be sired by a son of Rysdyk's Hambletonian through the blood of Abdallah, Seely's American Star, Pilot Jr., Sayre's Harry Clay and Clark Chief.

In March, 1878, Mr. Backman bought the stallion Kentucky Prince at one of Peter C. Kellogg's public sales in New York city, paying for him \$10,700, the highest price for a trotting stallion up to that time.

Among the daughters of Seely's American Star that Mr. Backman then owned was Flora Gardiner. Her dam was by Bay

Richmond, and Bay Richmond was by Toby, out of Lady Pluck, a mare that according to the American Trotting Register could trot a mile in 2:40. Lady Pluck was by Mambrino, the running-bred son of imported Messenger, that got old Abdallah. Toby was by Brown Highlander and his dam was by Tippecanoe, another thoroughbred son of imported Messenger. Brown Highlander was by imported Brown Highlander, and his dam was by imported Messenger himself. As Stockholm's American Star, the sire of Seely's American Star, was inbred to Messenger, Flora Gardiner was very strongly inbred to that noted sire.

In 1879, Mr. Backman had Flora Gardiner mated with Kentucky Prince, and in 1880 she produced a black colt, now known as Guy, whose likeness appears upon our first page. This likeness was reproduced from a life photograph taken recently and represents the horse as he is at twenty-two years of age. Guy began to get his name before the public in 1883. The December number of Wallace's Monthly for that year announces that "W. J. Gordon of Cleveland, O., has bought of J. B. Perkins, same place, the black gelding Guy, three years old; price, \$10,000."

The first appearance of Guy on a track in public was at Cleveland, O., Sept. 12, 1885, hitched to pole with Clingstone (2:14). The pair were started to beat 2:19, and trotted two heats in 2:17, 2:17. The first account that we find of Guy as a contestant in a public race for money was at Detroit, Mich., July 22, 1886, in a \$5000 guaranteed stake for 2:30 trotters. The race was won in straight heats by Wilton; time, 2:19, 2:19, 2:20. Guy finished third in the first heat and fourth in the second, but was distanced in the third. He had plenty of speed, but was inclined to be cranky, and sometimes acted badly when scoring for the word in a race. He had been handled up to this time by the careful and capable trainer, T. J. Dunbar.

Guy was not started again until July 24, 1888. He was then at Detroit, Mich., in a stake for \$2000 for the three-minute class trotting. There were five starters. Guy won in one heat, distancing all the others; time, 2:13. He won seven good races that season, including one special against Clingstone (2:14), and another against Rosalind Wilkes (2:14), and lowered his race record to 2:16 in a free-for-all that he won at St. Louis, Mo., Oct. 3. At Cleveland, O., on Oct. 29, he started against time, to beat 2:12, and accomplished the feat, getting a record of 2:12. He was handled that season by Millard Sanders, if we remember correctly. In 1889, he was started on several occasions against time, and lowered his record to 2:10 at Cleveland, O., on Aug. 1 of that season. The following year he was started several times to beat his record, but failed. His best mile that season was 2:11.

In 1891, Guy made only a single effort to lower his record, but was unsuccessful. He was not started in 1892, but in 1893 was started three times, and accomplished all that was asked of him each time. On July 18 of that year he was started to wagon at Detroit, Mich., to beat 2:20, and trotted the mile in 2:13. Three days later, July 21, he started on the Detroit track to beat 2:11, and went the mile in 2:09. This record, we believe, stands to this credit on the books of the National and American Trotting Associations, but it was rejected by the American Trotting Register Association, as were also many others made by other horses at different times.

W. J. Gordon, who owned Guy for a number of years, was hopeful of seeing him beat the world's champion trotting record, but the horse carried rather too much hot blood to do the trick. He may have had speed enough when in his prime to have done it, but it was then difficult to manage him so as to utilize his wonderful speed successfully. His sire, Kentucky Prince, was by Clark Chief, whose sire was Mambrino Chief, and whose dam, Little Nora, was by Downing's Bay Messenger, out of Mrs. Caudle, the dam of Electioneer (2:03). Clark Chief died when he was only ten years old, but he got six trotters that made records from 2:13 to 2:30. He left twelve sons that have sired in all seventy-one that have taken records in standard time, sixty-six of which are trotters.

Kentucky Prince, the sire of Guy (2:09), is credited with thirty-nine trotters and two pacers in the list. He contributed a greater number to the standard list than all the other eleven sons of Clark Chief, and yet

the blood lines of his dam, Kentucky Queen, were far from what many breeders would now consider fashionable or even desirable, being chiefly Morgan and thoroughbred. Kentucky Queen was by Morgan Eagle, son of Hale's Green Mountain Morgan, and her dam was by Blythe's Whip, a son of the thoroughbred Blackburn's Whip, her next dam being by Martin's Brimmer, and out of a daughter of Quicksilver, another thoroughbred.

It will be seen by this that Kentucky Queen got a liberal supply of the thoroughbred element through her dam. In addition to that, however, she got another strong and close infusion through her sire, Morgan Eagle, whose dam was by the thoroughbred Callender, and second dam by a son of Sherman Morgan, known as Crown Prince. Callender was by the renowned four-mile race winner, American Eclipse, and his dam, Princess, was by Sir Archy. This was rather too hot a combination to fuse kindly with the Seely's American Star strain for the production of level-headed trotters. It gave a very high-class speed inheritance, but it lacked a sufficient inheritance of inclination to stick to the trot to control the gait under high pressure or unusual excitement.

Guy is now, and has for some time, been owned by W. H. Gocher, Hartford, Ct., the energetic secretary of the National Trotting Association, who uses him for road driving. He is a remarkably well-preserved horse of his age. There are probably but few twenty-two-year-old trotters that can brush with him down the road. It is safe to predict that Guy will never suffer for lack of a good home. T. J. Dunbar, Guy's old trainer, tells the following story about the horse in "Splan's Life with the Trotters": "One fine morning in June, my youngest boy was warm shower, Guy was hitched to the light cart and I started to give him his work on a straight piece of road about a mile long, partly shaded by large maple trees, with their long low branches overhanging the whole roadway. At the end of this drive there is an old railroad track graded up much higher than the road, and very steep down on the other side. I seldom crossed this track, as my usual drive was to this railroad, then forward and back, until the amount of work necessary to be done was finished. The horses under my charge had the route well learned, and expected a little brush occasionally before returning to the stable."

The morning I speak of, as I passed through the little town of Glenville, my youngest boy was waiting there with the mail for me. He looked so entreatingly at me for a ride that I thought I best to take him in. We jogged along all day to the speeding ground, Guy as full of play as a spring hare, and as buoyant as the boy behind him, who thought he was driving him, and had hold of the lines with me. The rain which had fallen was not quite enough to make mud under the trees, and it seemed to be about the proper time to treat the boy and horse to a little spin. They were both anxious for it, and when the boy laughed the horse would follow suit by shaking his head and trying to get the bit.

To please them was only to please myself, and I no sooner thought of it than Guy knew it and was off. Great Cesar, how he went! And how the sand and dirt did fly! Charlie crying, "Let him go, pa!" and suddenly finding out that there were three jobs on hand needing immediate attention: First, to keep my eyes open; second, to keep the boy still in the cart; and third, to stop the horse.

My mind was occupied also with the fact that the car might break, and also in figuring whether I could stop Guy before we got to the railroad. To say I was getting nervous puts it mildly—I was really becoming frightened. With a good grip on the boy with my knee, a hold on Guy with all my might, and with eyes almost closed with mud, matters were getting desperate. Guy was now fairly running away, was beyond control, but true to his breeding still on the trot. As we were nearing the railroad at every step the tension was getting stronger; something must be done. He had the bit, in fact, he had me. It was Guy cutting up that hot, not me. I yelled "Whoa!" I tried to saw him to a stop. I pulled so hard that the cart springs settled down until Guy looked like a seven-headed horse. But it was of no use; he was "out" in earnest. As we emerged from the shade of the trees the mud was thin, and it was flying over the cart like shavings from a planer. There was only one more chance; would he stop from force of habit, or would he go on over the track? If he goes over we are gone. We are almost there. I must try something. I began carefully to let up on him; he hesitates a trifle, slows down gradually, comes to a walk, stretches out his neck asking to let go the bit, and we turn around to go back. We were much in the condition of the boy whom the mule had kicked. We were not a bit handsome as before, but knew a great deal more. You may safely guess I did not encourage Guy to speed any more that morning. We walked back and took a rest for the balance of the day. And that was Charlie's last ride behind Guy. He

often said after that, "If Mr. Gordon had seen Guy go he guessed he would have been proud of him."

The Nashua (N. H.) Meeting.

The July meeting opened at Nashua, N. H., on the 8th inst. under most favorable conditions, beautiful weather, a large attendance, good fields of horses, and judges who were evidently disposed to treat every one fairly, and at the same time see that the rules were enforced. During the past few seasons the managers have endeavored to treat their patrons to square, honest racing. The result is larger entry lists and increased gate receipts. The managers were fortunate in securing the services of the popular and competent starter, Frank Walker, and also some competent race judges. Everything passed off smoothly on the first day, but on the second the judges were satisfied that some of the drivers needed a taste of discipline and they gave it to them. The action of the judges was warmly commended by every one who has the best interests of the sport at heart. They were satisfied that there was a job in the 2:16 pacing race, and which was not finished until the following day. After investigating the affair and deliberating on it over night, the judges decided that the evidence of crooked work was so strong against drivers Charles H. Cook and A. H. Rowdoin that they suspended them and the horses that they drove in that race for one year. Many thought the drivers lucky to get off so easily. The judges also fined driver W. R. Cox \$25 for disrespectful behavior toward the judges, in giving them back talk. It is seldom that more interesting racing is seen throughout an entire meeting on any New England track than that at Nashua. The favorites failed to win, however, in several instances. A feature of the last day's racing was the fast time made in the 2:20 trotting race. The fastest heat in that race was one-half second faster than the fastest heat in the 2:20 trot. The next meeting at Nashua will come off Aug. 5 to 8.

SUMMARIES.

Nashua, N. H., July 8, 1902—3:00 class, trot. Purse, \$500.
Little Belle, b. m. by Warrior (White) 1 1 1
Anna Rose, b. m. (Cox) 2 2 2
Julius, ch. m. (Avard) 3 3 3
Joe Gar, b. g. (Dore) 4 4 4
Anna Mae, ch. m. (Richardson) 5 5 5
Time, 2:24, 2:24, 2:24.

Same day—3:00 class. Purse, \$500.
Peeler Patron, b. g. by Peeler (Richardson) 2 1 1
The Flying Dutchman, b. g. (Mabee) 1 6 5 4
Hetty Green, b. m. (Dore) 4 2 2
The Duke, b. g. (Sunderlin) 5 3 3
Alec M., ch. m. (Holmes) 6 4 3 15
Tues, b. m. (Hayden) 7 5 4 15
May Patchen, br. m. (Trout) 3 15
Big Sandy, b. g. (Spofford) 4 15
Time, 2:20, 2:20, 2:20, 2:22.

Nashua, N. H., July 9, 1902—2:26 class, trotting. Purse, \$500.
Lady Thelma, ch. m. by Clement R. 2 2 1 1
Lola, b. m. (Cox) 1 10 3 2
Cloutart Boy, b. h. by Cloutart (Isabel) 1 12 3 4
Dorena, br. m. (Fletcher) 3 3 2 3
Blaker, b. g. (Timothy) 2 9 4 4 2
Cloutart Boy, b. h. by Cloutart (Isabel) 1 12 3 4
Dorena, br. m. (Fletcher) 3 3 2 3
Blaker, b. g. (Timothy) 2 9 4 4 2
Baby Con, b. g. 5 4 5 3
Panfare, b. g. 5 4 5 3
Time, 2:21, 2:21, 2:21, 2:20, 2:22.

Same day—2:25 class, pacing. Purse, \$500.
Verlaire, b. g. by Rex Americus (Brusell) 9 1 1 1
William F. b. g. (Palmer) 1 10 3 2
Lougaz, b. m. 3 2 2
Lady Nautie, ch. m. (Timothy) 2 4 4
Velvet Bud, b. m. 4 6 8
D. G. Franklin, b. g. 5 8 5
Blaker, b. g. 2 9 4 4 2
Brownstone, b. g. 5 7 7
Thelma, ch. m. 7 9 9
Time, 2:20, 2:21, 2:21, 2:20, 2:22.

Nashua, N. H., July 10, 1902—2:16 class, pacing. Purse, \$500. Six heats contested July 9.
Lexington, b. g. by Poem (O'Neil) 1 3 4 2 1 3 1
Reed Patchen, m. g. (Cox) 2 2 1 4 2 2 2
Belie Mine, b. m. (Cook) 3 4 1 2 3 3 15
Gambit, b. h. (Bedouin and Essey) 1 3 3 1 5
Time, 2:17, 2:18, 2:19, 2:20, 2:21, 2:25, 2:20, 2:22.

Same day—2:18 class, pacing. Purse, \$500.
Verlaire, b. g. by Rex Americus (Brusell) 9 1 1 1
William F. b. g. (Palmer) 1 10 3 2
Lola, b. m. (Cox) 1 10 3 2
Lady Nautie, ch. m. (Timothy) 2 4 4
Velvet Bud, b. m. 4 6 8
D. G. Franklin, b. g. 5 8 5
Blaker, b. g. 2 9 4 4 2
Brownstone, b. g. 5 7 7
Thelma, ch. m. 7 9 9
Time, 2:21, 2:21, 2:21, 2:20, 2:22.

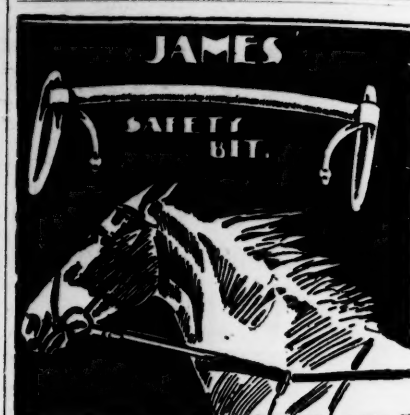
Same day—Free-for-all trot or pace. Purse, \$500.
Phelon W. b. g. by Hamiltonian Wilkes (Dore) 1 1 1
E. E. Knott, ch. g. (Sunderlin) 1 2 3 3
Marion G. b. m. (O'Neil) 3 3 4 4
Milo S. ch. g. (Whitney) 4 4 2
Thomas Calloun, m. g. (Essey) 4 4 2
Time, 2:14, 2:14, 2:17, 2:17.

Same day—2:16 class, trotting. Purse, \$500.
Gold Burr, ch. g. by Bursar (Essey) 3 1 1 2 1
Roommate, b. g. by Rumor (Galles) 1 2 2 1 2
Byron Wilkes, b. g. (Durland) 2 4 3 3
Baron Wood, b. g. (White) 4 3 3 4 5
Time, 2:21, 2:19, 2:21, 2:22, 2:19.

Nashua, N. H., July 11, 1902—2:29 class, trotting. Purse, \$500.
Treeco, ch. g. by Benton Wilkes (Brusell) 1 1 1
Vanity, gr. m. (Smith) 6 2 2
Mary Rachel, ch. m. (Timothy) 2 6 6
Armstrong, ch. g. (Dore) 3 3 3
Zetara, b. g. (Cox) 4 3 6
Robin Hood, br. g. (Smith) 5 5 5
Miss Lewis, b. m. (Hayden) 5 5 5
Time, 2:20, 2:20, 2:20, 2:20.

Same day—2:23 class, pacing. Purse, \$500.
Red Line, ch. g. by Young Artemus (Cox) 1 1 1
Scott, b. g. by Ben Ekan (Hayes) 1 2 2
Van 1, b. g. (Spofford) 2 2 2
Brownie B. b. g. (Manlove) 3 3 3
Harry Robinson, b. g. (Cleary) 3 3 3
Richard S. b. g. (Simpson) 4 4 4
Time, 2:17, 2:20, 2:20, 2:23.

Same day—2:20 class, trotting. Purse, \$500.
Minnie G. b. m. by Alcantara (Dore) 2 1 1 1
Joe Gaines, b. g. by Allie Gaines (Davis) 3 3 4 4
Othmar, b. g. (Fletcher) 3 3 4 4
Sunol St. Kes, b. g. (Roper) 4 3 3
Time, 2:23, 2:24, 2:24, 2:24.



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